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NEWS 3 JUL 02 SCISEARCH enhanced with complete author names
NEWS 4 JUL 02 CHEMCATS accession numbers revised
NEWS 5 JUL 02 CA/CAplus enhanced with utility model patents from China
NEWS 6 JUL 16 CAplus enhanced with French and German abstracts
NEWS 7 JUL 18 CA/CAplus patent coverage enhanced
NEWS 8 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9 JUL 30 USGENE now available on STN
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NEWS 11 AUG 06 FSTA enhanced with new thesaurus edition
NEWS 12 AUG 13 CA/CAplus enhanced with additional kind codes for granted patents
NEWS 13 AUG 20 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 14 AUG 27 Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 15 AUG 27 USPATOLD now available on STN
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NEWS 17 SEP 07 STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 18 SEP 13 FORIS renamed to SOFIS
NEWS 19 SEP 13 INPADOCDB enhanced with monthly SDI frequency
NEWS 20 SEP 17 CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 21 SEP 17 CAplus coverage extended to include traditional medicine patents
NEWS 22 SEP 24 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23 OCT 02 CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 24 OCT 19 BEILSTEIN updated with new compounds
NEWS 25 NOV 15 Derwent Indian patent publication number format enhanced
NEWS 26 NOV 19 WPIX enhanced with XML display format

NEWS EXPRESS 19 SEPTEMBER 2007. CURRENT WINDOWS VERSION IS V6.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS SIN Operating Hours Plus Help Desk Availability
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NEWS IPC8 For general information regarding STN implementation of IPC 8

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=> file casreact

COST IN U.S. DOLLARS

| SINCE FILE
ENTRY | TOTAL
SESSION |
|---------------------|------------------|
| 0.21 | 0.21 |

FULL ESTIMATED COST

ENVIRONMENTAL SESSION

FILE 'CASREACT' ENTERED AT 10:36:48 ON 21 NOV 2007
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FILE CONTENT:1840 - 17 Nov 2007 VOL 147 ISS 22

New CAS Information Use Policies. enter HELP USAGETERMS for details.

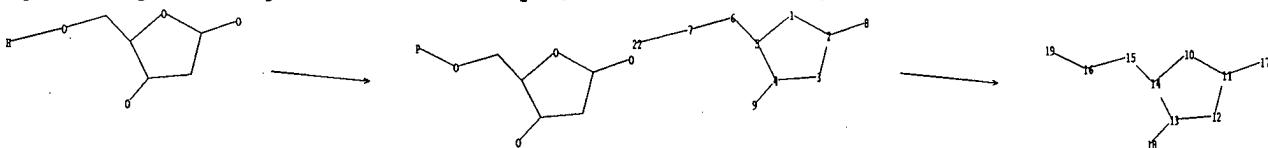
* *****
* . CASREACT now has more than 13.8 million reactions
* .
* *****

Some CASREACT records are derived from the ZIC/VINITI database (1974-1999) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

\Rightarrow

Uploading C:\Program Files\Stnexp\Queries\10578912\reaction 2.str



chain nodes :

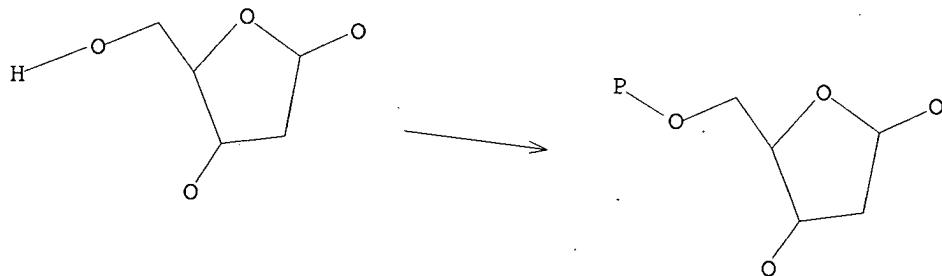
6 7 8 9 15 16 17 18 19 22

ring nodes :
 1 2 3 4 5 10 11 12 13 14
 chain bonds :
 2-8 4-9 5-6 6-7 7-22 11-17 13-18 14-15 15-16 16-19
 ring bonds :
 1-2 1-5 2-3 3-4 4-5 10-11 10-14 11-12 12-13 13-14
 exact/norm bonds :
 1-2 1-5 2-3 2-8 3-4 4-5 4-9 6-7 10-11 10-14 11-12 11-17 12-13 13-14
 13-18 15-16 16-19
 exact bonds :
 5-6 7-22 14-15

Match level :
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:Atom
 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS
 19:CLASS 22:CLASS
 fragments assigned product role:
 containing 10
 fragments assigned reactant/reagent role:
 containing 1

L1 STRUCTURE UPLOADED

=> d
 L1 HAS NO ANSWERS
 L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11
 SAMPLE SEARCH INITIATED 10:37:07 FILE 'CASREACT'
 SCREENING COMPLETE - 174 REACTIONS TO VERIFY FROM 17 DOCUMENTS
 100.0% DONE 174 VERIFIED 0 HIT RXNS 0 DOCS
 SEARCH TIME: 00.00.01

| | | | |
|--------------------------|--------|--------------|------|
| FULL FILE PROJECTIONS: | ONLINE | **COMPLETE** | |
| | BATCH | **COMPLETE** | |
| PROJECTED VERIFICATIONS: | 2689 | TO | 4271 |
| PROJECTED ANSWERS: | 0 | TO | 0 |

L2

0 SEA SSS SAM L1 (0 REACTIONS)

=> s 11 full

FULL SEARCH INITIATED 10:37:15 FILE 'CASREACT'

SCREENING COMPLETE - 4071 REACTIONS TO VERIFY FROM

339 DOCUMENTS

100.0% DONE 4071 VERIFIED 81 HIT RXNS
SEARCH TIME: 00.00.01

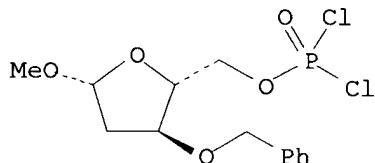
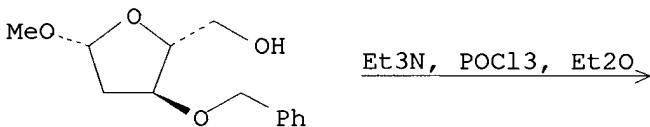
21 DOCS

L3 21 SEA SSS FUL L1 (81 REACTIONS)

=> d 13 1-21

L3 ANSWER 1 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(18) OF 34

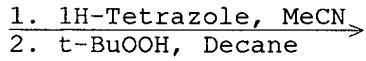
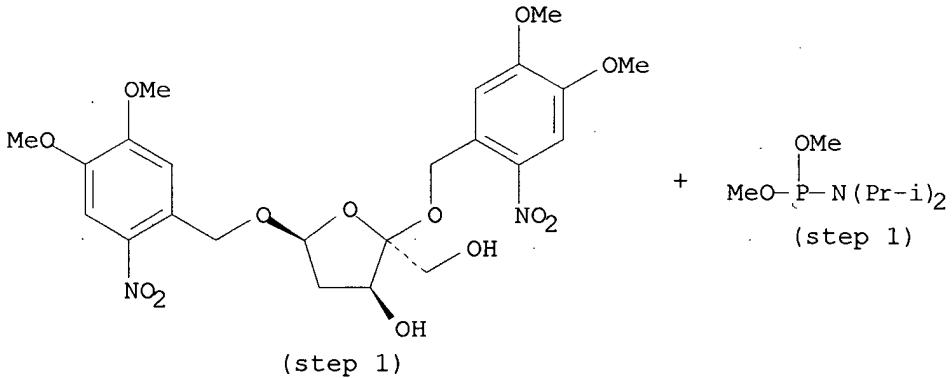


REF: Carbohydrate Research, 341(9), 1117-1129; 2006

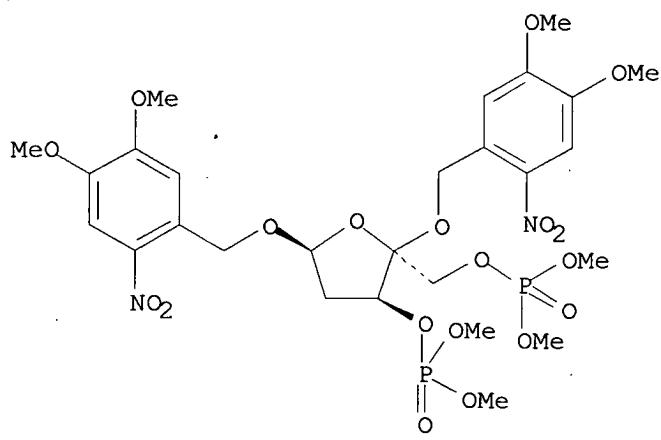
CON: STAGE(1) 0 deg C; 4 hours, 0 deg C; 0 deg C -> 25 deg C

L3 ANSWER 2 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(19) OF 102



RX(19) OF 102

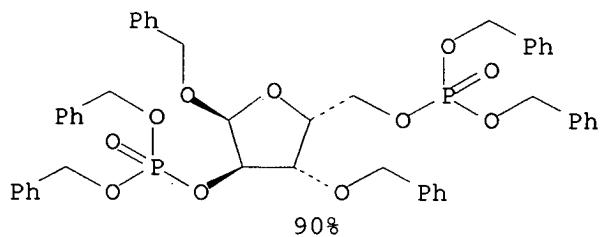
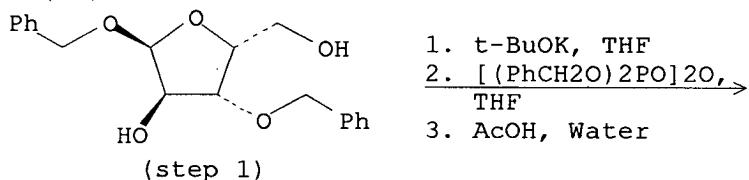


64%

REF: Journal of Organic Chemistry, 70(20), 8122-8129; 2005
CON: STAGE(1) 30 minutes
STAGE(2) 2 hours

L3 ANSWER 3 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(34) OF 187

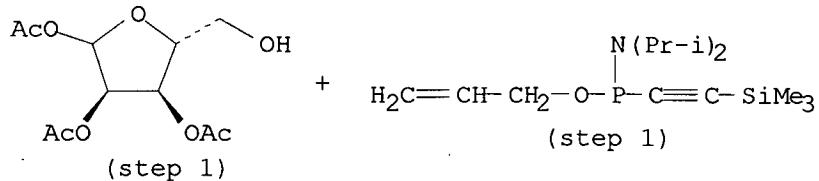


90%

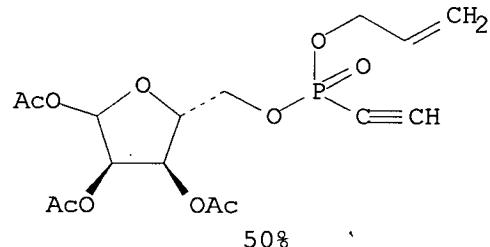
REF: Chemistry & Biodiversity, 1(10), 1418-1451; 2004
CON: STAGE(1) 5 minutes, -40 deg C
STAGE(2) 30 minutes, -40 deg C; -40 deg C -> 0 deg C
STAGE(3) 0 deg C

L3 ANSWER 4 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (6) OF 86



1. $2,4-(O_2N)_2C_6H_3OH$, MeCN
2. CH_2Cl_2
3. H_2O_2 , Water
4. $NaHCO_3$, Water
5. CsF , EtOH
6. $NaHCO_3$, Water

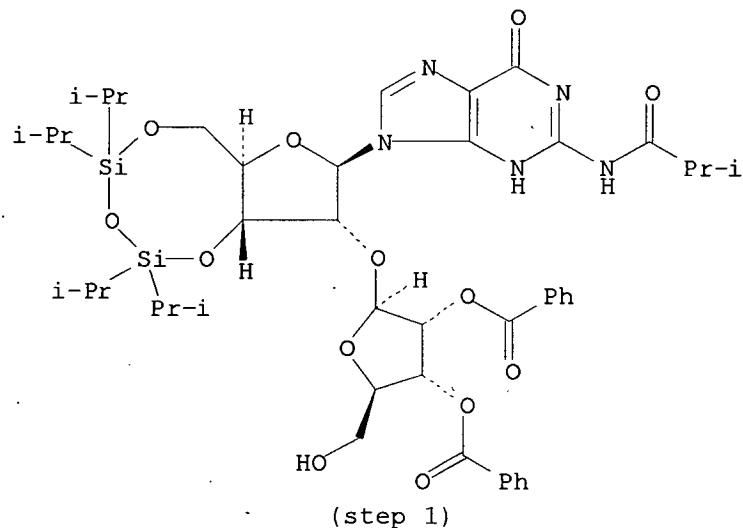


REF: Organic Letters, 6(20), 3461-3464; 2004

CON:
STAGE(1) 2 hours, room temperature
STAGE(2) room temperature \rightarrow 0 deg C
STAGE(3) 7 minutes, 0 deg C
STAGE(4) 0 deg C
STAGE(5) 1 hour, room temperature
STAGE(6) room temperature

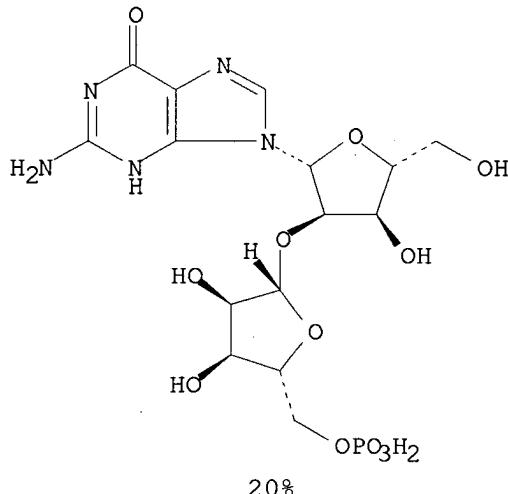
L3 ANSWER 5 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (3) OF 6



RX(3) OF 6

1. R:329188-31-0,
2,4,6-i-Pr₃C₆H₂SO₂Cl,
N-Methylimidazole,
Pyridine
2. Bu₄N.F, THF
3. DBU, Pyridine
4. NH₃, MeOH

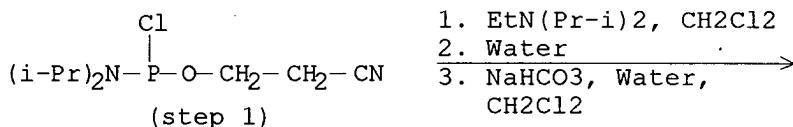
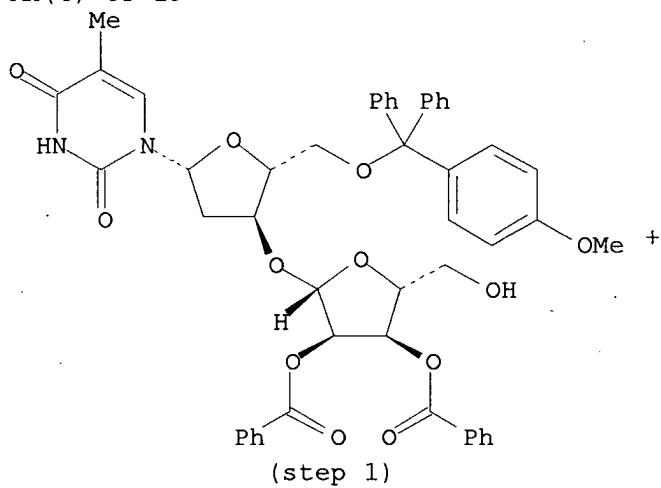


REF: Nucleosides, Nucleotides & Nucleic Acids, 22(5-8), 1109-1111;
2003

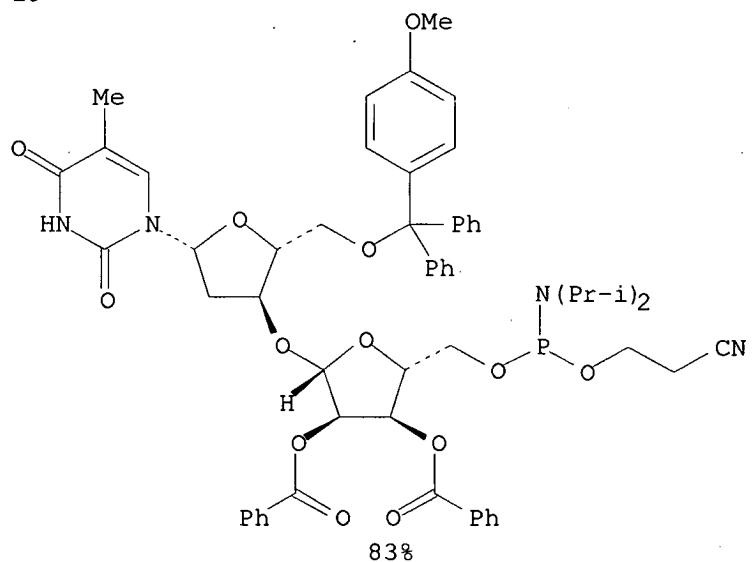
CON: STAGE(1) room temperature
STAGE(2) room temperature
STAGE(3) room temperature
STAGE(4) room temperature

L3 ANSWER 6 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(4) OF 19



RX (4) OF 19



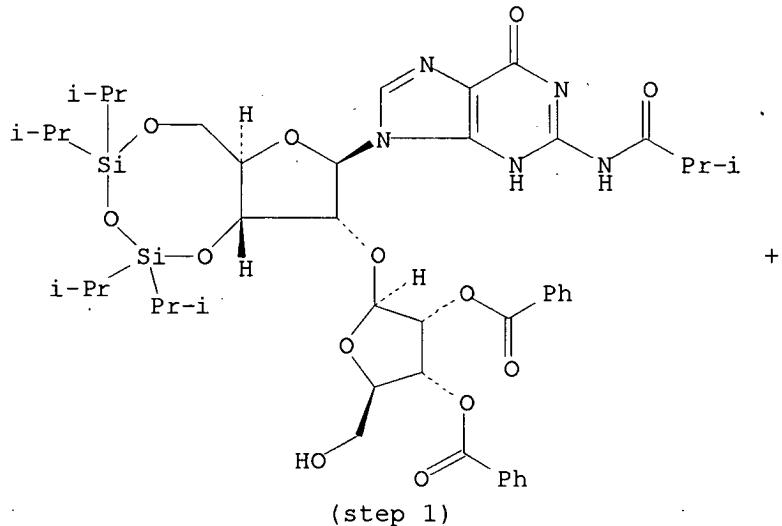
REF: Nucleosides, Nucleotides & Nucleic Acids, 22(4), 359-371; 2003

CON: STAGE(1) 60 minutes, room temperature

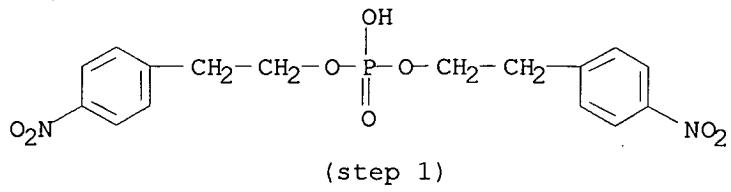
STAGE(2) 10 minutes, room temperature

L3 ANSWER 7 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (5) OF 41

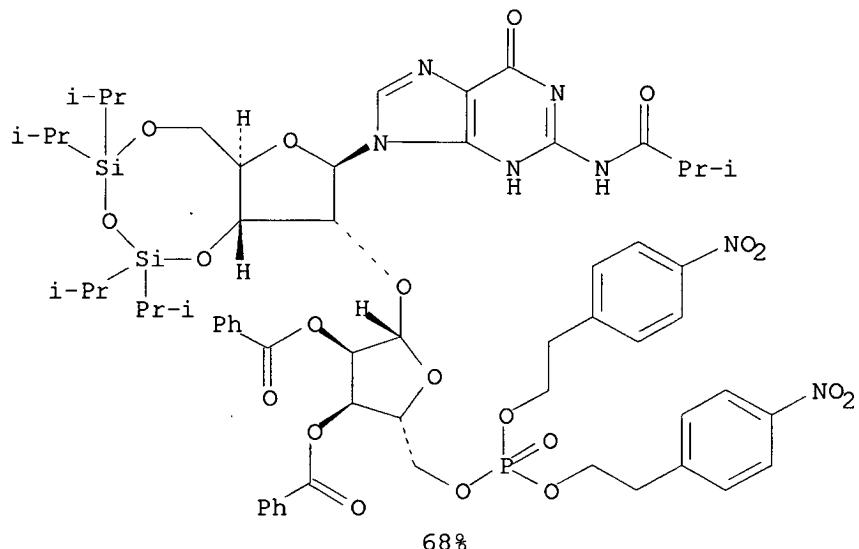


RX(5) OF 41



1. Et₃N, Pyridine
2. (i-Pr)₃SiCl,
N-Methylimidazole, →
Pyridine
3. CHCl₃
4. Water

RX(5) OF 41



68%

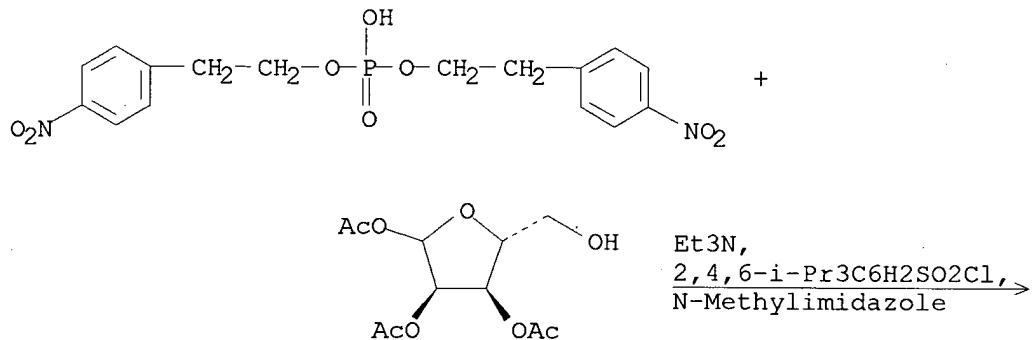
REF: Helvetica Chimica Acta, 86(2), 504-514; 2003

NOTE: phosphate buffered soln. used in last stage

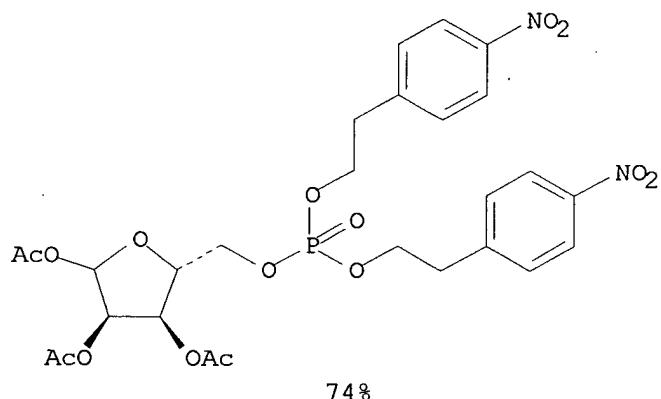
CON: STAGE(2) 4 hours, 20 deg C

STAGE(4) pH 7.0

RX(1) OF 20



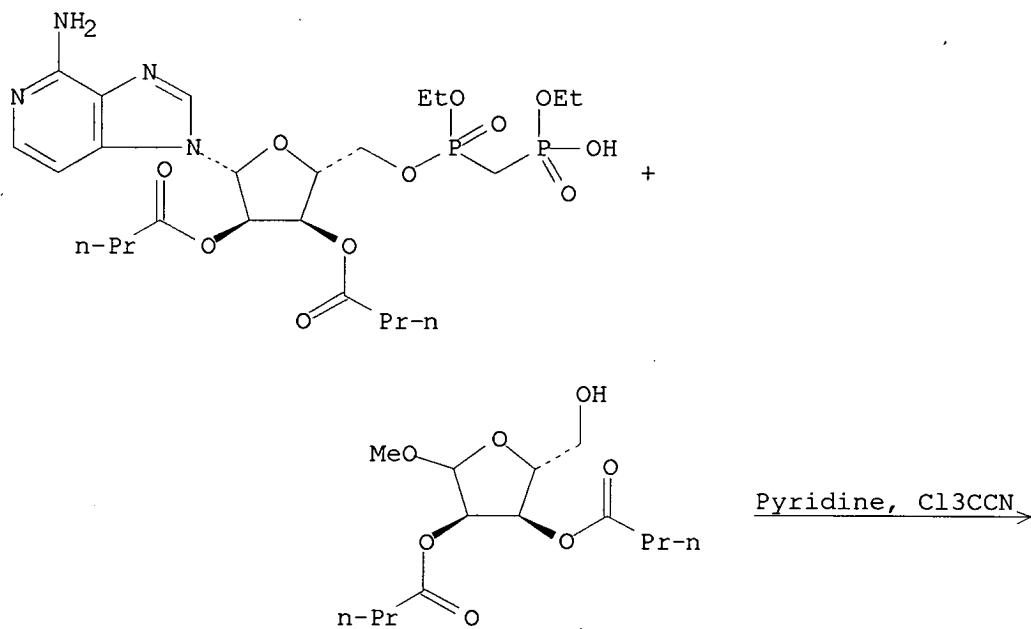
RX(1) OF 20



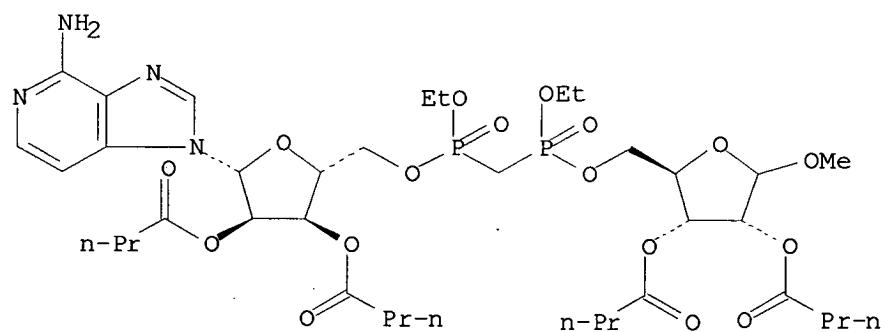
REF: Collection Symposium Series, 5 (Chemistry of Nucleic Acid Components), 312-315; 2002
NOTE: stereoselective, isomer mix.

L3 ANSWER 9 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(5) OF 17



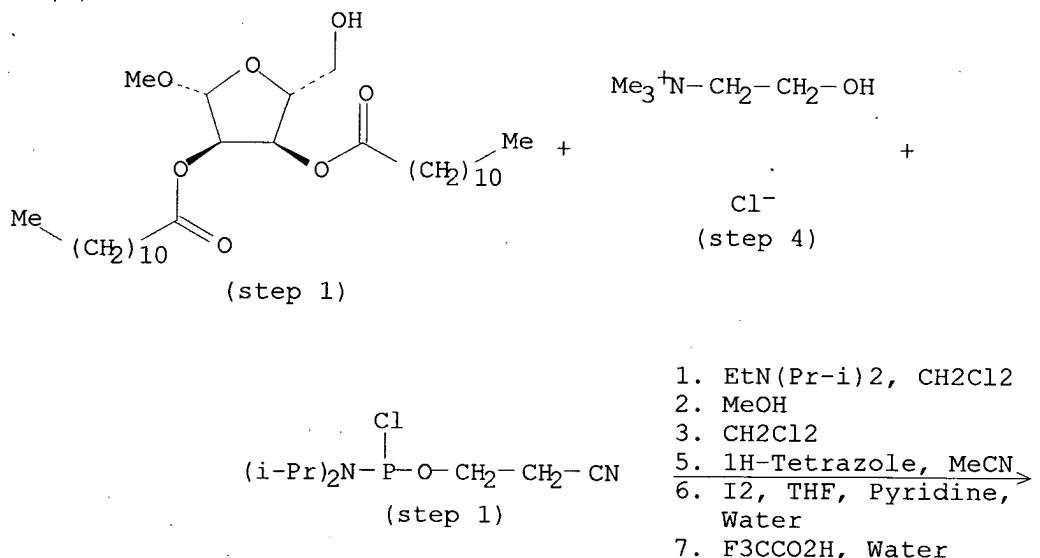
RX(5) OF 17



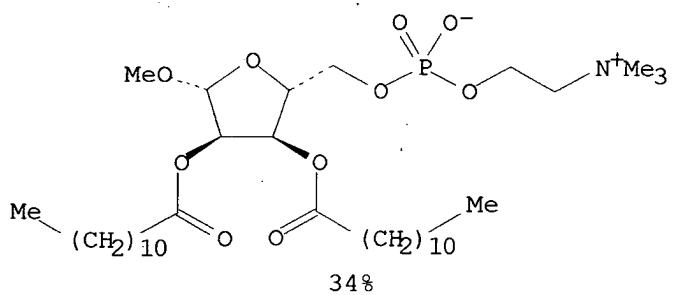
REF: U.S. Pat. Appl. Publ., 2003013869, 16 Jan 2003

L3 ANSWER 10 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(3) OF 16

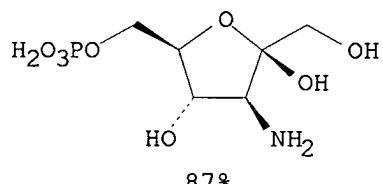
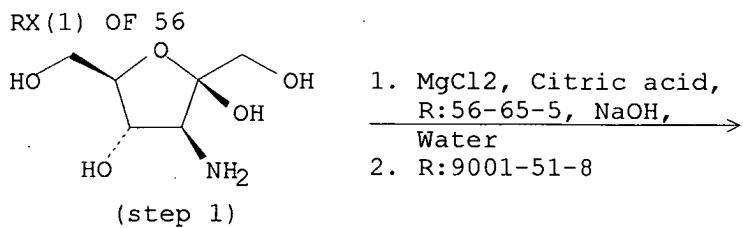


RX(3) OF 16



REF: Journal of the American Chemical Society, 124(21), 5983-5992;
2002

NOTE: stereoselective



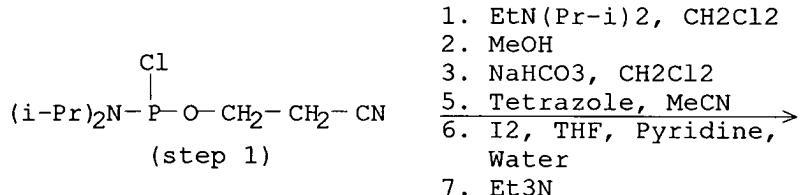
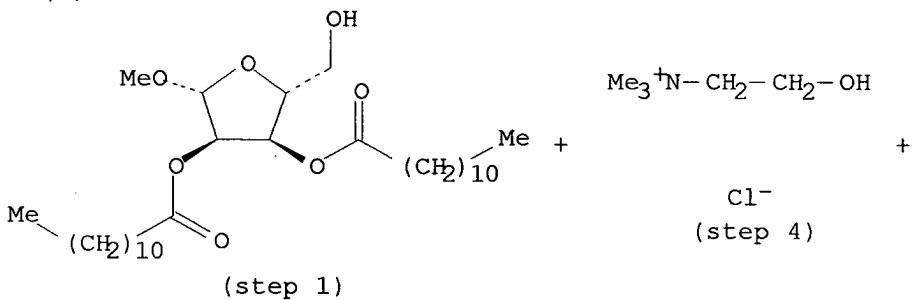
REF: Journal of the American Chemical Society, 124(4), 528-529; 2002
 NOTE: deionized water used in the first stage, attachment to AG-I X8
 anion exchange resin (acetate form) in third stage

L3 ANSWER 12 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

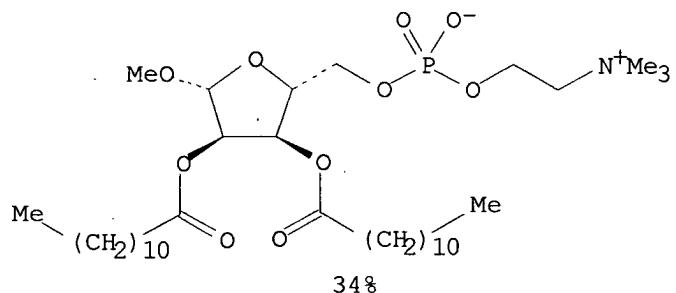
RX(7) OF 45 - REACTION DIAGRAM NOT AVAILABLE

L3 ANSWER 13 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(3) OF 6



RX (3) OF 6

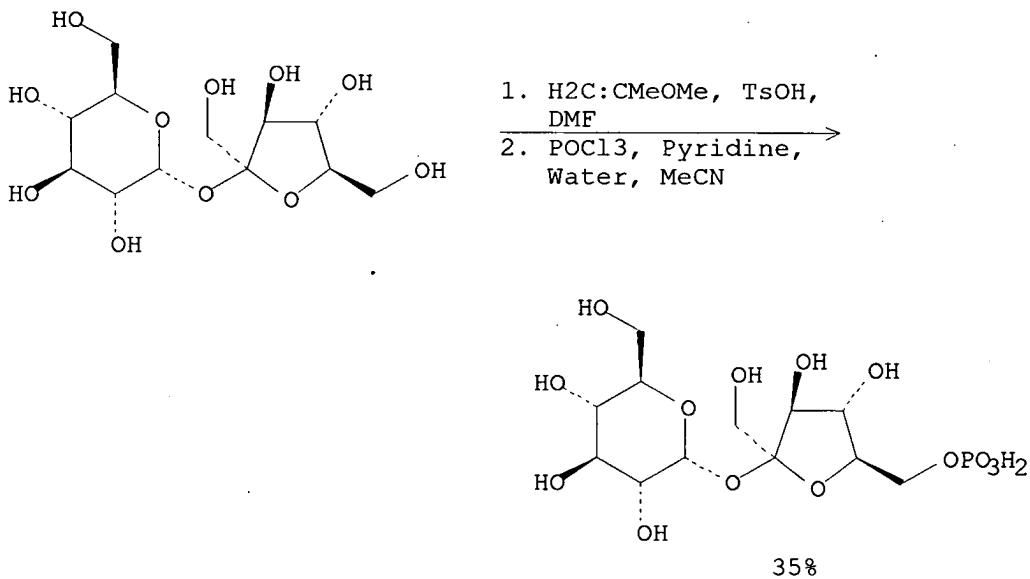


REF: Journal of the American Chemical Society, 122(33), 8097-8098;
2000

NOTE: STEREOSELECTIVE

L3 ANSWER 14 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (3) OF 3 - 2 STEPS

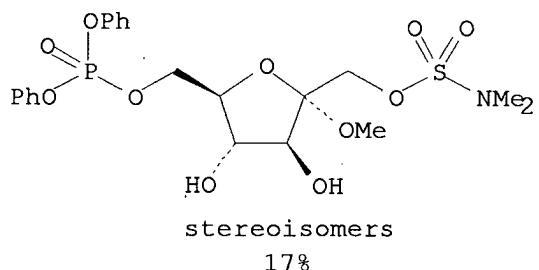
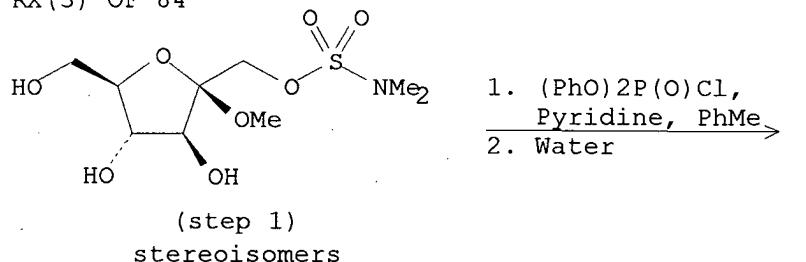


REF: Carbohydrate Research, 270(1), 71-5; 1995

NOTE: 2) regioselective, key step

L3 ANSWER 15 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

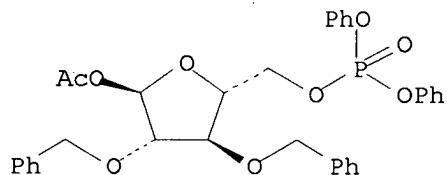
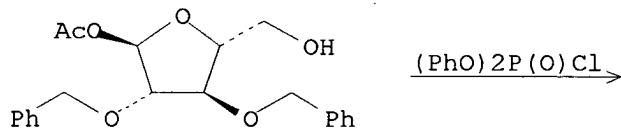
RX (3) OF 84



REF: Tetrahedron, 44(11), 3093-106; 1988

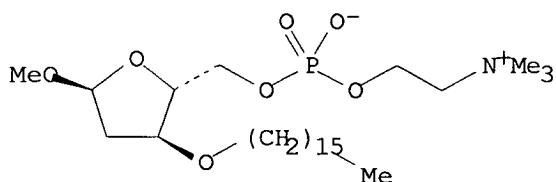
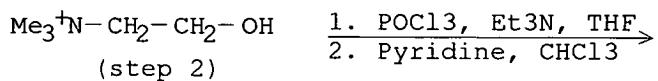
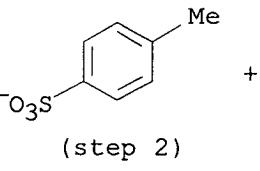
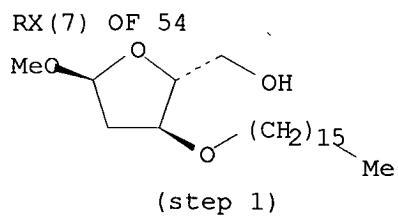
L3 ANSWER 16 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 10



REF: U.S., 4745185, 17 May 1988

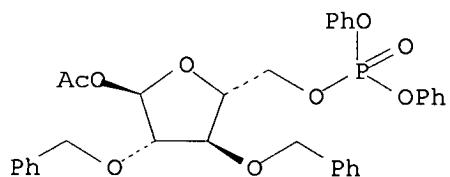
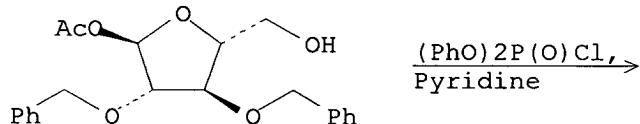
L3 ANSWER 17 OF 21 CASREACT COPYRIGHT 2007 ACS on STN



REF: Carbohydrate Research, 146(1), 89-96; 1986

L3 ANSWER 18 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

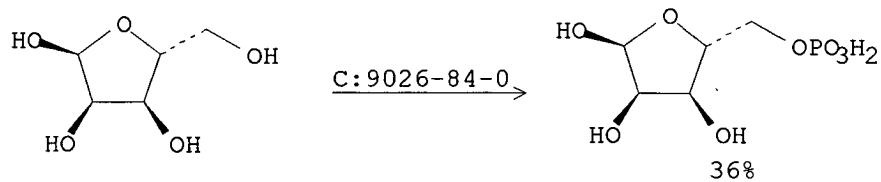
RX (4) OF 21



REF: Journal of the American Chemical Society, 106(25), 7851-3; 1984

L3 ANSWER 19 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (2) OF 6

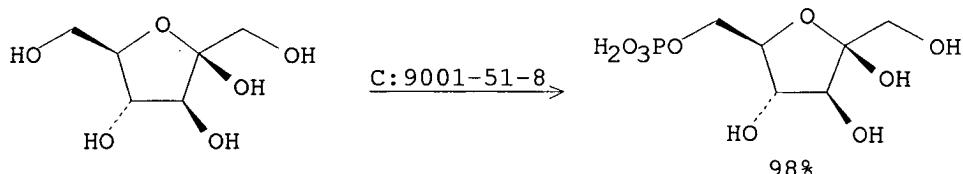


REF: Journal of the American Chemical Society, 105(25), 7428-35; 1983

NOTE: Biotransformation: catalyzed by ribokinase from lactobacillus plantarum; # Conditions: 100 mmol educt, 6 mmol di-na-atp, 15 mmol di-na-edta, 120 k-pep; 33 u ribokinase, 166 u pyruvate kinase, all pan immobilized; 1 ml water, 1 mm dtt, ph 6,9-7,1 maintained; 3,5 d

L3 ANSWER 20 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (5) OF 7

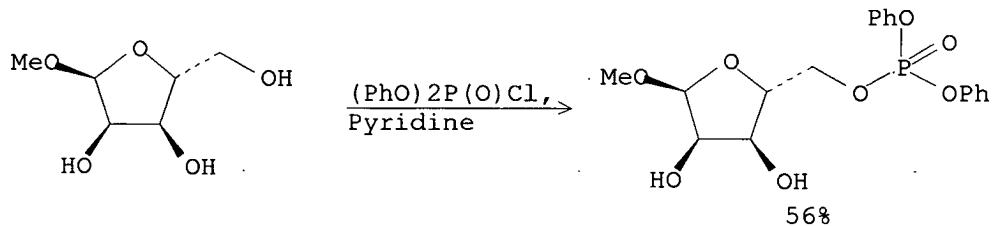


REF: Journal of Organic Chemistry, 48(19), 3199-205; 1983

NOTE: Biotransformation: catalyzed by hexokinase + acetate kinase; # Conditions: 0,2 mol fru, 0,21 mol acetate kinase (10 portions), 5 mm 2-mercaptoethanol; 600 u hexokinase, 450 u acetate kinase, coimmobilized, 5 mm adp; 1000 ml volume, ph 7,2, 10 mm mgcl2; 20 h

L3 ANSWER 21 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX (4) OF 8



REF: Journal of the American Chemical Society, 84,, 1879-89; 1962

NOTE: Classification: Phosphorylation; # Conditions: pyridine; cool 20mn; 20 deg overnight; # Comments: reactant not isolated

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST ENTRY SESSION
171.20 171.41

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FILE 'CASREACT' ENTERED AT 10:36:48 ON 21 NOV 2007
L1 STRUCTURE uploaded
L2 0 S L1
L3 21 S L1 FULL

FILE 'CPLUS' ENTERED AT 10:37:48 ON 21 NOV 2007

=> s l3 and (phosphatase OR "Acid Phosphatase" OR "Phosphatases" OR "Enzymes")
21 L3
130985 PHOSPHATASE
28566 PHOSPHATASES
137808 PHOSPHATASE
(PHOSPHATASE OR PHOSPHATASES)
4479536 "ACID"
1601632 "ACIDS"
4984600 "ACID"
("ACID" OR "ACIDS")
130985 "PHOSPHATASE"
28566 "PHOSPHATASES"
137808 "PHOSPHATASE"
("PHOSPHATASE" OR "PHOSPHATASES")
28454 "ACID PHOSPHATASE"
("ACID" (W) "PHOSPHATASE")
28566 "PHOSPHATASES"
475340 "ENZYMES"
L4 2 L3 AND (PHOSPHATASE OR "ACID PHOSPHATASE" OR "PHOSPHATASES" OR

"ENZYMES")

=> d 14 1-2 ibib hitrn

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:6966 CAPLUS
DOCUMENT NUMBER: **102:6966**
TITLE: Stereoselective synthesis and biological activity of
β- and α-D-arabinose 1,5-diphosphate:
analogs of a potent metabolic regulator
AUTHOR(S): Maryanoff, Bruce E.; Reitz, Allen B.; Tutwiler, Gene
F.; Benkovic, Stephen J.; Benkovic, Patricia A.;
Pilkis, Simon J.
CORPORATE SOURCE: Chem. Biol. Res. Dep., McNeil Pharm., Spring House,
PA, 19477, USA
SOURCE: Journal of the American Chemical Society (1984),
106(25), 7851-3
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 102:6966

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:2887 CAPLUS
DOCUMENT NUMBER: **100:2887**
TITLE: Practical synthesis of 5-phospho-D-ribosyl
α-1-pyrophosphate (PRPP): enzymatic routes from
ribose 5-phosphate or ribose
AUTHOR(S): Gross, Akiva; Abril, Obsidiana; Lewis, Jerome M.;
Geresh, Shimona; Whitesides, George M.
CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA
SOURCE: Journal of the American Chemical Society (1983),
105(25), 7428-35
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 100:2887

=> FIL STNGUIDE

COST IN U.S. DOLLARS

| SINCE FILE
ENTRY | TOTAL
SESSION |
|---------------------|------------------|
| 13.35 | 184.76 |

FULL ESTIMATED COST

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=> d 14 1-2 ibib kwic

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS' - CONTINUE? (Y)/N:y

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:6966 CAPLUS
DOCUMENT NUMBER: 102:6966
TITLE: Stereoselective synthesis and biological activity of
 β - and α -D-arabinose 1,5-diphosphate:
analog of a potent metabolic regulator
AUTHOR(S): Maryanoff, Bruce E.; Reitz, Allen B.; Tutwiler, Gene
F.; Benkovic, Stephen J.; Benkovic, Patricia A.;
Pilkis, Simon J.
CORPORATE SOURCE: Chem. Biol. Res. Dep., McNeil Pharm., Spring House,
PA, 19477, USA
SOURCE: Journal of the American Chemical Society (1984),
106(25), 7851-3
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 102:6966
AN 1985:6966 CAPLUS
DN 102:6966
ST arabinose diphosphate; phosphate arabinose; fructose diphosphate analog;
metabolic regulator analog; phosphatase arabinose diphosphate;
kinase arabinose diphosphate

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:2887 CAPLUS
DOCUMENT NUMBER: 100:2887
TITLE: Practical synthesis of 5-phospho-D-ribosyl
 α -1-pyrophosphate (PRPP): enzymatic routes from
ribose 5-phosphate or ribose
AUTHOR(S): Gross, Akiva; Abril, Obsidiana; Lewis, Jerome M.;
Geresh, Shimona; Whitesides, George M.
CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA
SOURCE: Journal of the American Chemical Society (1983),
105(25), 7428-35
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 100:2887
AN 1984:2887 CAPLUS
DN 100:2887
AB . . . for the isolation of PRPP synthetase (from *Salmonella*
typhimurium) and ribokinase (from *Lactobacillus plantarum*) and for the
immobilization of these enzymes in PAN.
IT 25014-41-9
RL: ANST (Analytical study)
(enzymes immobilization on, for PRPP and UMP preparation)

=> d his

(FILE 'HOME' ENTERED AT 10:36:32 ON 21 NOV 2007)

FILE 'CASREACT' ENTERED AT 10:36:48 ON 21 NOV 2007

L1 STRUCTURE UPLOADED
L2 0 S L1
L3 21 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:37:48 ON 21 NOV 2007

L4 E PHOSPHATASE+ALL/CT
2 S L3 AND (PHOSPHATASE OR "ACID PHOSPHATASE" OR "PHOSPHATASES" O

FILE 'STNGUIDE' ENTERED AT 10:38:53 ON 21 NOV 2007

FILE 'CAPLUS' ENTERED AT 10:40:49 ON 21 NOV 2007

FILE 'STNGUIDE' ENTERED AT 10:40:49 ON 21 NOV 2007

=> file stng

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.72 | 190.82 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
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=>

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|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.24 | 191.06 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| CA SUBSCRIBER PRICE | 0.00 | -0.78 |

STN INTERNATIONAL LOGOFF AT 10:50:36 ON 21 NOV 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTALDB1623

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * * * * * * Welcome to STN International * * * * * * * * * * * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 JUL 02 LMEDLINE coverage updated
NEWS 3 JUL 02 SCISEARCH enhanced with complete author names
NEWS 4 JUL 02 CHEMCATS accession numbers revised
NEWS 5 JUL 02 CA/CAplus enhanced with utility model patents from China
NEWS 6 JUL 16 CAplus enhanced with French and German abstracts
NEWS 7 JUL 18 CA/CAplus patent coverage enhanced
NEWS 8 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9 JUL 30 USGENE now available on STN
NEWS 10 AUG 06 CAS REGISTRY enhanced with new experimental property tags
NEWS 11 AUG 06 FSTA enhanced with new thesaurus edition
NEWS 12 AUG 13 CA/CAplus enhanced with additional kind codes for granted patents
NEWS 13 AUG 20 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 14 AUG 27 Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 15 AUG 27 USPATOLD now available on STN
NEWS 16 AUG 28 CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 17 SEP 07 STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 18 SEP 13 FORIS renamed to SOFIS
NEWS 19 SEP 13 INPADOCDB enhanced with monthly SDI frequency
NEWS 20 SEP 17 CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 21 SEP 17 CAplus coverage extended to include traditional medicine patents
NEWS 22 SEP 24 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23 OCT 02 CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 24 OCT 19 BEILSTEIN updated with new compounds
NEWS 25 NOV 15 Derwent Indian patent publication number format enhanced
NEWS 26 NOV 19 WPIX enhanced with XML display format

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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NEWS IPC8 For general information regarding STN implementation of IPC 8

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FILE 'HOME' ENTERED AT 14:11:44 ON 21 NOV 2007

=> file reg

COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE
ENTRY
0.21

TOTAL
SESSION
0.21

FILE 'REGISTRY' ENTERED AT 14:12:07 ON 21 NOV 2007
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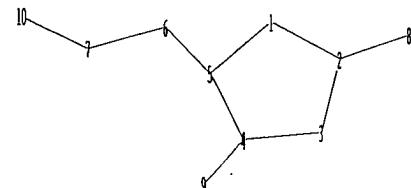
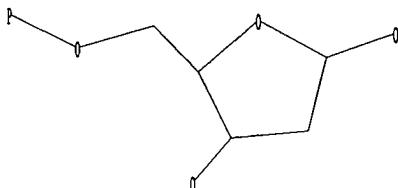
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predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

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chain nodes :

6 7 8 9 10

ring nodes :

1 2 3 4 5

chain bonds :

2-8 4-9 5-6 6-7 7-10

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 2-3 2-8 3-4 4-5 4-9 6-7 7-10

exact bonds :

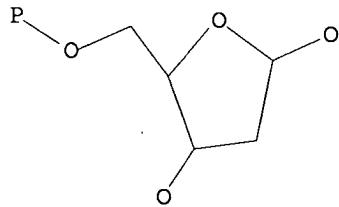
5-6

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 14:12:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 272 TO ITERATE

100.0% PROCESSED 272 ITERATIONS 27 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 4451 TO 6429
PROJECTED ANSWERS: 229 TO 851

L2 27 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 14:12:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 5833 TO ITERATE

100.0% PROCESSED 5833 ITERATIONS 618 ANSWERS
SEARCH TIME: 00.00.01

L3 618 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 172.10 172.31

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=> s 13
L4 2711 L3

=> s 14 and bpn/r1
137933 BPN/RL
L5 58 L4 AND BPN/RL

=> d scan

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 7-2 (Enzymes)
Section cross-reference(s): 10
TI Identification and Active Expression of the *Mycobacterium tuberculosis* Gene Encoding 5-Phospho- α -D-ribose-1-diphosphate:Decaprenyl-phosphate 5-Phosphoribosyltransferase, the First Enzyme Committed to Decaprenylphosphoryl-D-arabinose Synthesis
ST *Mycobacterium decaprenyl phosphate phosphoribosyltransferase gene Rv3806c decaprenylphosphoryl arabinose biosynthesis*
IT Enzymes, biological studies
RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(5-Phospho- α -D-ribose-1-diphosphate:decaprenyl-phosphate 5-phosphoribosyltransferase; heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from *Mycobacterium tuberculosis*)
IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Rv3806c; heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from *Mycobacterium tuberculosis*)
IT Michaelis constant
Mycobacterium tuberculosis
(heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from *Mycobacterium*

tuberculosis)
IT Protein motifs
(transmembrane domain; heterologous expression and biochem.
characterization of gene Rv3806c decaprenyl-phosphate
phosphoribosyltransferase from Mycobacterium tuberculosis)
IT 7439-95-4, Magnesium, biological studies 168037-27-2
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(heterologous expression and biochem. characterization of gene Rv3806c
decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium
tuberculosis)
IT **7540-64-9**, 5-Phospho- α -D-ribose-1-diphosphate 124050-72-2
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(substrate; heterologous expression and biochem. characterization of
gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from
Mycobacterium tuberculosis)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

LS 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 7-2 (Enzymes)
Section cross-reference(s): 3, 11
TI Purification and characterization of a recombinant pea cytoplasmic
fructose-1,6-bisphosphatase
ST fructose 1 6 bisphosphatase expression protein sequence kinetics pea
IT Reaction kinetics
(frequency factor; purification and characterization of a recombinant pea
cytoplasmic fructose-1,6-bisphosphatase)
IT Enzyme kinetics
(of inhibition, for AMP and fructose-2,6-bisphosphate; purification and
characterization of a recombinant pea cytoplasmic fructose-1,6-
bisphosphatase)
IT Activation energy
Cytoplasm
Enzyme kinetics
Michaelis constant
Pisum sativum
Protein sequences
cDNA sequences
(purification and characterization of a recombinant pea cytoplasmic
fructose-1,6-bisphosphatase)
IT 482118-18-3
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(amino acid sequence; purification and characterization of a recombinant pea
cytoplasmic fructose-1,6-bisphosphatase)
IT 61-19-8, 5'-AMP, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition kinetics; purification and characterization of a recombinant pea
cytoplasmic fructose-1,6-bisphosphatase)
IT 421778-04-3
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(nucleotide sequence; purification and characterization of a recombinant pea
cytoplasmic fructose-1,6-bisphosphatase)
IT 9001-52-9P, Fructose-1,6-bisphosphatase
RL: **BPN (Biosynthetic preparation)**; BSU (Biological study,
unclassified); PRP (Properties); BIOL (Biological study); PREP

(Preparation)
(purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT **77164-51-3**, Fructose-2,6-bisphosphate
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC. 7-3 (Enzymes)
TI O-ADP-ribosylation in the NAD/NADase system: 2-alkanols as efficient substrates
ST alkanol specificity ADP ribosylation NADase
IT ADP ribosylation
(ADP-ribosylation of 2-alkanols in NAD/NADase system)
IT Alcohols, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(secondary; ADP-ribosylation of 2-alkanols in NAD/NADase system)
IT 9032-65-9, NADase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ADP-ribosylation of 2-alkanols in NAD/NADase system)
IT 67-63-0, 2-Propanol, biological studies 78-92-2, 2-Butanol 626-93-7,
2-Hexanol 6032-29-7, 2-Pentanol
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(ADP-ribosylation of 2-alkanols in NAD/NADase system)
IT 53-84-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(ADP-ribosylation of 2-alkanols in NAD/NADase system)
IT **331830-75-2P** **331830-77-4P** **331830-79-6P**
331830-81-0P **331830-83-2P** **331830-85-4P**
331830-87-6P **331830-88-7P**
RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(alkanol specificity in ADP-ribosylation by NAD/NADase system)
IT 57-55-6, 1,2-Propanediol, biological studies 71-23-8, 1-Propanol, biological studies 584-02-1, 3-Pentanol 625-69-4, 2,4-Pentanediol
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(alkanol specificity in ADP-ribosylation by NAD/NADase system)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 10-5 (Microbial, Algal, and Fungal Biochemistry)
TI ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene
ST ADP ribosylation rifampin inactivation Mycobacterium
IT ADP ribosylation
Antibiotic resistance
Mycobacterium smegmatis
(ADP-ribosylation as an intermediate step in inactivation of rifampin

by a mycobacterial gene)
IT Protein motifs
(glycosylation site; ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)
IT 13292-46-1, Rifampin
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)
IT 58-68-4, NADH
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)
IT **221910-89-0**
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); BIOL (Biological study); FORM (Formation, nonpreparative)
(ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)
IT 58319-92-9P, Mono(ADP-ribosyl)transferase
RL: BAC (Biological activity or effector, except adverse); **BPN** (**Biosynthetic preparation**); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(recombinant; ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 33-2 (Carbohydrates)
Section cross-reference(s): 7, 9, 22
TI Steady-State Measurements on Fructose 6-Phosphate/Fructose 1,6-Bisphosphate Interconversion Cycle
ST phosphorylation dephosphorylation fructose phosphate enzymic; fructose phosphate glycolysis steady state measurement
IT Phosphorylation
(enzymic; steady state measurements on fructose phosphate fructose bisphosphate interconversion cycle)
IT Dephosphorylation, biological
(steady state measurements on fructose phosphate fructose bisphosphate interconversion cycle)
IT 488-69-7P, Fructose 1,6-bisphosphate 76774-41-9P, Fructose 6-phosphatase
RL: **BPN** (**Biosynthetic preparation**); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(steady-state measurements on fructose phosphate-fructose bisphosphate interconversion cycle)
IT 56-65-5P, Atp, preparation 57-03-4P, Glycerol 3-phosphate 61-19-8P, Amp, preparation **77164-51-3P**, Fructose 2,6-bisphosphate
RL: **BPN** (**Biosynthetic preparation**); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(steady state measurements on fructose phosphate fructose bisphosphate interconversion cycle)
IT 9001-52-9, Fructose 1,6-bisphosphatase 9001-79-0, Creatine phosphatase
9001-80-3, Phosphofructokinase 1
RL: CAT (Catalyst use); USES (Uses)
(steady state measurements on fructose phosphate fructose bisphosphate interconversion cycle)

interconversion cycle)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 7-5 (Enzymes)
Section cross-reference(s): 1, 75
TI Crystal Structure of the Hypoxia-inducible Form of 6-Phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3): A possible new target for cancer therapy
ST crystal structure phosphofructo kinase fructose bisphosphatase PFKFB3 drug design
IT Enzyme functional sites
(active; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))
IT Drug design
Human
(crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))
IT Conformation
(hairpin loop; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))
IT Crystal structure
(of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))
IT Conformation
Quaternary structure
(protein; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))
IT Enzyme functional sites
(substrate-binding; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))
IT 58-64-0DP, 5'-ADP, complexes with 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase, ADP, EDTA fructose-2,6-bisphosphate 60-00-4DP, EDTA, complex with 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase and ADP 78689-77-7DP, 6-Phosphofructo-2-kinase, fructose-2,6-bisphosphatase 78689-77-7DP, 6-Phosphofructo-2-kinase, fructose-2,6-bisphosphatase, complexes **79082-92-1DP**, complex with 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase and ADP
RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 10-2 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 4
TI Formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1
ST formaldehyde oxidn detoxification tetrahydromethanopterin pathway Methylobacterium
IT Methylobacterium extorquens
(AM1; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)

- IT Metabolic pathways
(C1 carbon metabolic pathway; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Dihydromethanopterin reductase, gene *dmrA*; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(*dmrA*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(*fae*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(*fghA*; mol. cloning of GSH-dependent formaldehyde oxidation system of *Paracoccus denitrificans* in tetrahydromethanopterin pathway mutants of *Methylobacterium extorquens* AM1)
- IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(*flhA*; mol. cloning of GSH-dependent formaldehyde oxidation system of *Paracoccus denitrificans* in tetrahydromethanopterin pathway mutants of *Methylobacterium extorquens* AM1)
- IT *Paracoccus denitrificans*
(heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in *Methylobacterium extorquens* AM1)
- IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(*mtdB*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT Mutagenesis
(mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT Molecular cloning
(of GSH-dependent formaldehyde oxidation system of *Paracoccus denitrificans* in tetrahydromethanopterin pathway mutants of *Methylobacterium extorquens* AM1)
- IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(*orf4*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT 50-00-0, Formaldehyde, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)
- IT 67-56-1, Methanol, biological studies 92481-94-2,

- Tetrahydromethanopterin 216503-92-3, NADP-dependent methylenetetrahydromethanopterin dehydrogenase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 353294-86-7, Formaldehyde-activating enzyme
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gene fae; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 83380-83-0P, S-Formylglutathione hydrolase
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
 (gene fghA; heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in Methylobacterium extorquens AM1)
- IT 9028-84-6P, Formaldehyde dehydrogenase
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
 (gene flhA; heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in Methylobacterium extorquens AM1)
- IT 9029-14-5, Methylenetetrahydrofolate dehydrogenase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gene mtDB; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 212625-38-2, 4-(β -D-Ribofuranosyl)aminobenzene 5'-phosphate synthase*
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gene orf4; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 70-18-8, GSH, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in Methylobacterium extorquens AM1)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- LS 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
 IC ICM C07K
 CC 33-9 (Carbohydrates)
 Section cross-reference(s): 1
 TI Process for selectively producing 1-phosphorylated sugar derivative anomer and process for producing nucleoside
 ST phosphorylated sugar anomer prepn intermediate nucleoside; nucleoside prepn nucleoside phosphorylase; phosphorylation isomerization phosphorylated sugar
 IT Carbohydrates, preparation
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (aldoses, pentose 1-phosphoric acid esters; selective preparation of 1-phosphorylated sugar derivative anomer by phosphorylation, isomerization, and fractional crystallization and process for producing nucleoside by glycosylation using nucleoside phosphorylase)
 IT Glycosylation
 (biol.; selective preparation of 1-phosphorylated sugar derivative anomer by

phosphorylation, isomerization, and fractional crystallization and process
for
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT Crystallization
(fractional; selective preparation of 1-phosphorylated sugar derivative
anomer
by phosphorylation, isomerization, and fractional crystallization and
process
for producing nucleoside by glycosylation using nucleoside
phosphorylase)

IT Isomerization
Phosphorylation
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT Nucleosides, preparation
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT 9030-21-1P, Purine nucleoside phosphorylase
RL: BPN (Biosynthetic preparation); CAT (Catalyst use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(enzymic glycosylation; selective preparation of 1-phosphorylated sugar
derivative anomer by phosphorylation, isomerization, and fractional
crystallization
and process for producing nucleoside by glycosylation using nucleoside
phosphorylase)

IT 1309-42-8, Magnesium hydroxide 7446-70-0, Aluminum chloride, uses
9030-22-2, Uridine phosphorylase 9030-23-3, Thymidine phosphorylase
9030-28-8, Guanosine phosphorylase 9055-35-0, Pyrimidine nucleoside
phosphorylase 9059-37-4, Nucleoside phosphorylase 10043-52-4, Calcium
chloride, uses 10124-37-5, Calcium nitrate 10361-37-2, Barium
chloride, uses 37277-77-3, Deoxyuridine phosphorylase
RL: CAT (Catalyst use); USES (Uses)
(enzymic glycosylation; selective preparation of 1-phosphorylated sugar
derivative anomer by phosphorylation, isomerization, and fractional
crystallization
and process for producing nucleoside by glycosylation using nucleoside
phosphorylase)

IT 50-89-5P, Thymidine, preparation 58-61-7P, Adenosine, preparation
958-09-8P, 2'-Deoxyadenosine 961-07-9P, 2'-Deoxyguanosine 2239-64-7P
4097-22-7P, 2',3'-Dideoxyadenosine 4229-57-6P 4291-63-8P,
2-Chloro-2'-deoxyadenosine 4318-06-3P 4546-70-7P 4546-73-0P
5399-87-1P, 6-Chloro-9-(β -D-ribofuranosyl)purine 5536-17-4P,
 β -D-Arabinofuranosyladenine 36791-04-5P, 1-(β -D-
Ribofuranosyl)-1,2,4-triazole-3-carboxamide 92562-88-4P 120595-72-4P
125178-07-6P 175908-23-3P 354823-77-1P 354823-78-2P
RL: BPN (Biosynthetic preparation); BIOL (Biological study);
PREP (Preparation)
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT 2627-69-2, 1-(β -D-Ribofuranosyl)-5-aminoimidazole-4-carboxamide
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for producing nucleoside by glycosylation using nucleoside phosphorylase)

IT 50-44-2, 6-Mercaptopurine 65-71-4, Thymine 73-24-5, Adenine, reactions
73-40-5, Guanine 87-42-3, 6-Chloropurine 102-82-9, Tributylamine
108-91-8, Cyclohexylamine, reactions 134-58-7, 8-Azaguanine 273-21-2,
4-Azabenzimidazole 360-97-4, 5-Aminoimidazole-4-carboxamide 1123-54-2,
8-Azaadenine 1839-18-5, 2-Chloro-6-aminopurine 1904-98-9,
2,6-Diaminopurine 3641-08-5, 1,2,4-Triazole-3-carboxamide 7664-38-2,
Orthophosphoric acid, reactions 10310-21-1, 2-Amino-6-chloropurine
19690-23-4, 2-Amino-6-iodopurine 19962-37-9 21740-23-8 68045-07-8
120503-69-7 125598-74-5 132575-50-9 307002-00-2 354823-27-1
354823-64-6 354823-74-8 355004-14-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for producing nucleoside by glycosylation using nucleoside phosphorylase)

IT 102783-28-8P 354823-22-6P 354823-24-8P 354823-29-3P 354823-30-6P
354823-32-8P 354823-36-2P 354823-41-9P 354823-45-3P 354823-48-6P
354823-51-1P 354823-54-4P 354823-58-8P 354823-59-9P 354823-63-5P
354823-66-8P 354823-68-0P 354823-73-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for producing nucleoside by glycosylation using nucleoside phosphorylase)

IT 354823-61-3P 354823-70-4P **354823-76-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(selective preparation of 1-phosphorylated sugar derivative anomer by
phosphorylation, isomerization, and fractional crystallization and process
for producing nucleoside by glycosylation using nucleoside phosphorylase)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d his

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FILE 'REGISTRY' ENTERED AT 14:12:07 ON 21 NOV 2007

L1 STRUCTURE UPLOADED
L2 27 S L1
L3 618 S L1 FULL

FILE 'CPLUS' ENTERED AT 14:12:29 ON 21 NOV 2007

L4 2711 S L3
L5 58 S L4 AND BPN/RL

=> s 15 and py<=2003

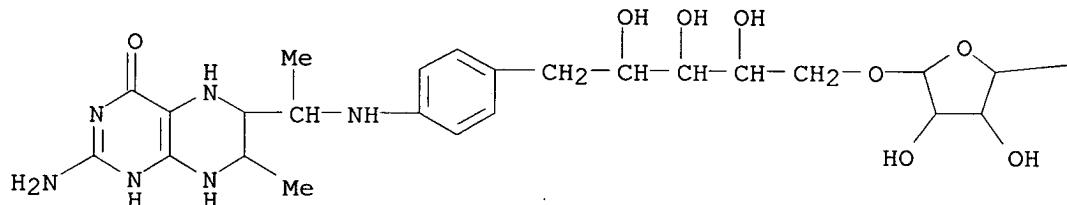
23955985 PY<=2003

L6 41 L5 AND PY<=2003

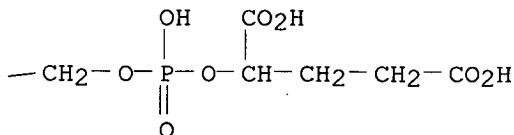
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L6 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:982932 CAPLUS
DOCUMENT NUMBER: 140:160288
TITLE: Formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1
AUTHOR(S): Marx, Christopher J.; Chistoserdova, Ludmila; Lidstrom, Mary E.
CORPORATE SOURCE: Department of Microbiology, University of Washington, Seattle, WA, 98195, USA
SOURCE: Journal of Bacteriology (2003), 185(24), 7160-7168
CODEN: JOBAAY; ISSN: 0021-9193
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **92481-94-2**, Tetrahydromethanopterin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
RN 92481-94-2 CAPLUS
CN D-Ribitol, 1-[4-[(1R)-1-[(6S,7S)-2-amino-1,4,5,6,7,8-hexahydro-7-methyl-4-oxo-6-pteridinyl]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]- α -D-ribofuranosyl- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

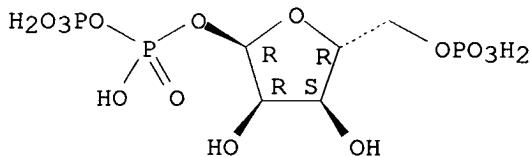


REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:552228 CAPLUS
DOCUMENT NUMBER: 139:271852
TITLE: Functional dissection of the *Bacillus subtilis* pur

AUTHOR(S): operator site
 Bera, Aloke Kumar; Zhu, Jianghai; Zalkin, Howard;
 Smith, Janet L.
 CORPORATE SOURCE: Department of Biological Sciences, Purdue University,
 West Lafayette, IN, 47907, USA
 SOURCE: Journal of Bacteriology (2003), 185(14),
 4099-4109
 CODEN: JOBAAY; ISSN: 0021-9193
 PUBLISHER: American Society for Microbiology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **7540-64-9**, Phosphoribosylpyrophosphate
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (functional dissection of the *Bacillus subtilis* pur operator site,
 including interaction of PurBoxes with PurR and crystal structure of
 PurR complexed with PRPP analog)
 RN 7540-64-9 CAPLUS
 CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen
 diphosphate) (CA INDEX NAME)

Absolute stereochemistry.

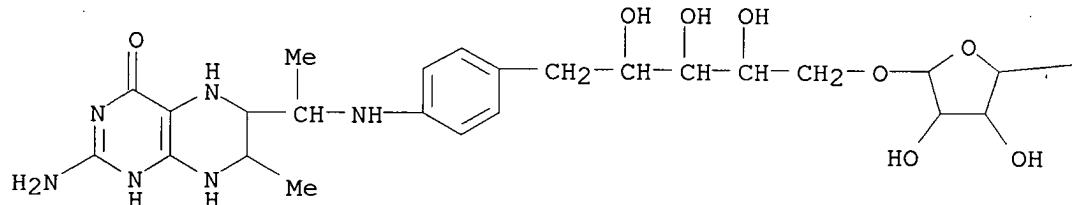


REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

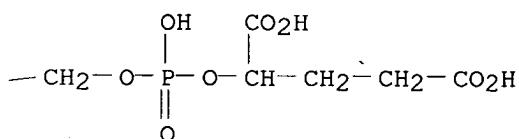
L6 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:291829 CAPLUS
 DOCUMENT NUMBER: 139:18015
 TITLE: Application of a colorimetric assay to identify putative ribofuranosylaminobenzene 5'-phosphate synthase genes expressed with activity in *Escherichia coli*
 AUTHOR(S): Bechard, Matthew E.; Chhatwal, Sonya; Garcia, Rosemarie E.; Rasche, Madeline E.
 CORPORATE SOURCE: Microbiology Cell Sci. Dep., Univ. Florida, Gainesville, FL, 32611-0700, USA
 SOURCE: Biological Procedures Online (2003), 5(1), 69-77
 CODEN: BLPOF8; ISSN: 1480-9222
 URL: <http://www.biologicalprocedures.com/bpo/arts/1/48/m48.pdf>
 PUBLISHER: Biological Procedures Online
 DOCUMENT TYPE: Journal; (online computer file)
 LANGUAGE: English
 IT **92481-94-2**, Tetrahydromethanopterin
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (tetrahydromethanopterin (H4MPT); application of colorimetric assay to identify archaeal ribofuranosylaminobenzene 5'-phosphate synthase genes expressed with activity in *E. coli*)
 RN 92481-94-2 CAPLUS

CN D-Ribitol, 1-[4-[(1R)-1-[(6S,7S)-2-amino-1,4,5,6,7,8-hexahydro-7-methyl-4-oxo-6-pteridinyl]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[(1S)-1,3-dicarboxypropoxy]hydroxypyrophosphoryl]- α -D-ribofuranosyl- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L6 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:206503 CAPLUS

DOCUMENT NUMBER: 139:129722

TITLE: Purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase

AUTHOR(S): Jang, Hye-Kyung; Lee, Sang-Won; Lee, Youn-Hyung; Hahn, Tae-Ryong

CORPORATE SOURCE: Plant Metabolism Research Center (PMRC) and Graduate School of Biotechnology, Kyung Hee University, Suwon, 449-701, S. Korea

SOURCE: Protein Expression and Purification (2003), 28(1), 42-48

CODEN: PEXPEJ; ISSN: 1046-5928

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

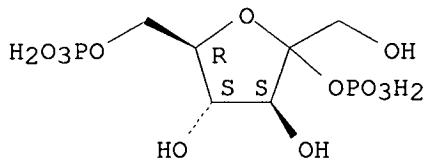
IT 77164-51-3, Fructose-2,6-bisphosphate

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

RN 77164-51-3 CAPLUS

CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.

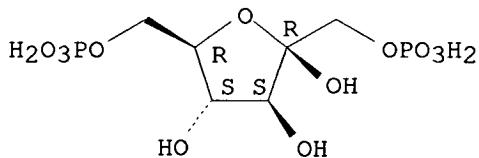


REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:870121 CAPLUS
 DOCUMENT NUMBER: 137:351603
 TITLE: 1,6-Fructose diphosphate strontium compounds and their preparing process and medical application
 INVENTOR(S): Ouyang, Pingkai; Ying, Hanjie; Zhao, Gulin; Xu, Yi; Cheng, Yanju
 PATENT ASSIGNEE(S): Nanjing Chemical Univ., Peop. Rep. China
 SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 19 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|-----------------|----------|-----------------|--------------|
| CN 1342653 | A | 20020403 | CN 2001-127286 | 20010929 <-- |
| PRIORITY APPLN. INFO.: | | | CN 2001-127286 | 20010929 |
| IT 474417-09-9P 474417-10-2P 474417-11-3P | | | | |
| RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fructose diphosphate strontium salts manufacture and medical application) | | | | |
| RN 474417-09-9 | CAPLUS | | | |
| CN β -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), strontium salt (1:1) (9CI) | (CA INDEX NAME) | | | |

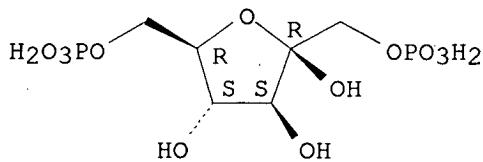
Absolute stereochemistry.



● Sr

RN 474417-10-2 CAPLUS
 CN β -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), strontium salt (1:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

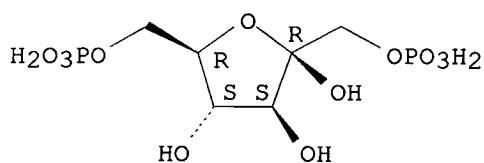


●2 Sr

RN 474417-11-3 CAPLUS

CN β-D-Fructofuranose, 1,6-bis(dihydrogen phosphate), strontium salt
(2:3) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●3/2 Sr

L6 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:783224 CAPLUS

DOCUMENT NUMBER: 138:85500

TITLE: The Adenine Phosphoribosyltransferase from Giardia lamblia Has a Unique Reaction Mechanism and Unusual Substrate Binding Properties

AUTHOR(S): Sarver, Anne E.; Wang, Ching C.

CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of California, San Francisco, CA, 94143-0446, USA

SOURCE: Journal of Biological Chemistry (2002), 277(42), 39973-39980

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 7540-64-9, α-D-5-Phosphoribosyl-1-pyrophosphate

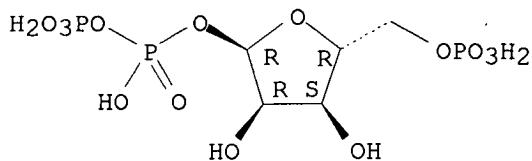
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(substrate, kinetic parameters; reaction mechanism and substrate binding properties of adenine phosphoribosyltransferase from Giardia lamblia)

RN 7540-64-9 CAPLUS

CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

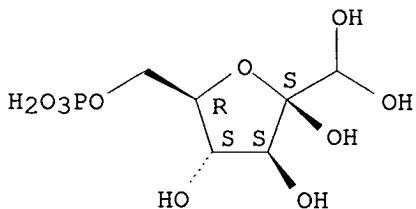
Absolute stereochemistry.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:732431 CAPLUS
 DOCUMENT NUMBER: 138:122773
 TITLE: Enzymatic synthesis of D-glucosone 6-phosphate
 (D-arabino-hexos-2-ulose 6-(dihydrogen phosphate)) and NMR analysis of its isomeric forms
 AUTHOR(S): Freimund, Stefan; Baldes, Lars; Huwig, Alexander; Giffhorn, Friedrich
 CORPORATE SOURCE: Lehrstuhl fur Angewandte Mikrobiologie, Universitat des Saarlandes, Saarbrucken, D-66041, Germany
 SOURCE: Carbohydrate Research (2002), 337(17), 1585-1587
 CODEN: CRBRAT; ISSN: 0008-6215
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 138:122773
 IT **490033-46-0P**
 RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
 (preparation and purification of D-glucosone 6-phosphate isomers via enzymic conversion with hexokinase)
 RN 490033-46-0 CAPLUS
 CN β-D-arabino-Hexos-2-ulose, 1-hydrate, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

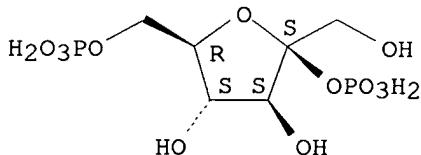


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:177711 CAPLUS
 DOCUMENT NUMBER: 137:75092
 TITLE: Molecular characterization of a phosphoenolpyruvate carboxylase from a thermophilic cyanobacterium, Synechococcus vulcanus with unusual allosteric properties

AUTHOR(S): Chen, Li-Mei; Omiya, Takuma; Hata, Shingo; Izui, Katsura
 CORPORATE SOURCE: Laboratory of Plant Physiology, Graduate School of Agriculture, Kyoto University, Kyoto, 606-8502, Japan
 SOURCE: Plant and Cell Physiology (**2002**), 43(2), 159-169
 CODEN: PCPHA5; ISSN: 0032-0781
 PUBLISHER: Japanese Society of Plant Physiologists
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **79082-92-1**, Fructose 2,6-bisphosphate
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of phosphoenolpyruvate carboxylase of Synechococcus vulcanus by)
 RN 79082-92-1 CAPLUS
 CN β-D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

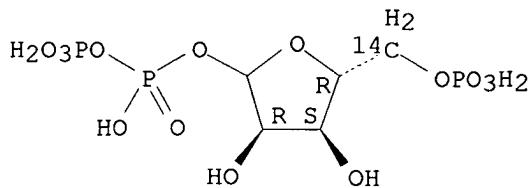
Absolute stereochemistry.



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:15344 CAPLUS
 DOCUMENT NUMBER: 136:355376
 TITLE: Enzymatic Synthesis of [5-14C]Ribose
 AUTHOR(S): Ogbunude, P. O. J.
 CORPORATE SOURCE: Department of Medical Biochemistry, University of Nigeria, Enugu, Nigeria
 SOURCE: Analytical Biochemistry (**2002**), 300(2), 267-269
 CODEN: ANBCA2; ISSN: 0003-2697
 PUBLISHER: Academic Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 136:355376
 IT **420112-07-8P**
 RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (enzymic synthesis of [5-14C]ribose from [6-14C]glucose)
 RN 420112-07-8 CAPLUS
 CN D-Ribofuranose-5-14C, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:14202 CAPLUS

DOCUMENT NUMBER: 136:213361

TITLE: Biosynthesis of 1-deoxy-1-imino-D-erythrose 4-phosphate: a defining metabolite in the aminoshikimate pathway

AUTHOR(S): Guo, Jiantao; Frost, J. W.

CORPORATE SOURCE: Department of Chemistry, Michigan State University, East Lansing, MI, 48824, USA

SOURCE: Journal of the American Chemical Society (2002), 124(4), 528-529

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:213361

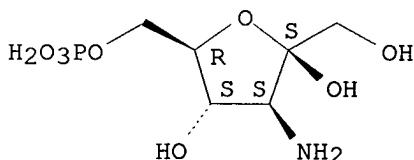
IT **402856-01-3P**

RL: BCP (Biochemical process); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(biosynthesis of 1-deoxy-1-imino-D-erythrose 4-phosphate and defining metabolite in the aminoshikimate pathway)

RN 402856-01-3 CAPLUS

CN β-D-Fructofuranose, 3-amino-3-deoxy-, 6-(dihydrogen phosphate) (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



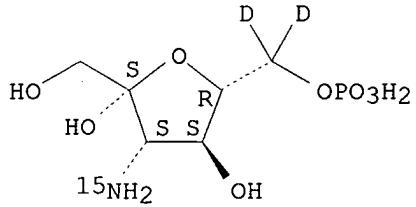
IT **402856-15-9P**

RL: BCP (Biochemical process); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process).
(labeling 3-amino-3-deoxy-D-fructose 6-phosphate)

RN 402856-15-9 CAPLUS

CN β-D-Fructofuranose-6,6-C-d2, 3-(amino-15N)-3-deoxy-, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:763228 CAPLUS
 DOCUMENT NUMBER: 135:314428
 TITLE: Positive selection of transformants by auxotroph complementation with enzymatic precursor conversion
 INVENTOR(S): Silva, Christopher J.
 PATENT ASSIGNEE(S): Cubist Pharmaceuticals, Inc., USA
 SOURCE: PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 2001077366 | A1 | 20011018 | WO 2001-US11567 | 20010410 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |

PRIORITY APPLN. INFO.: US 2000-195911P P 20000410

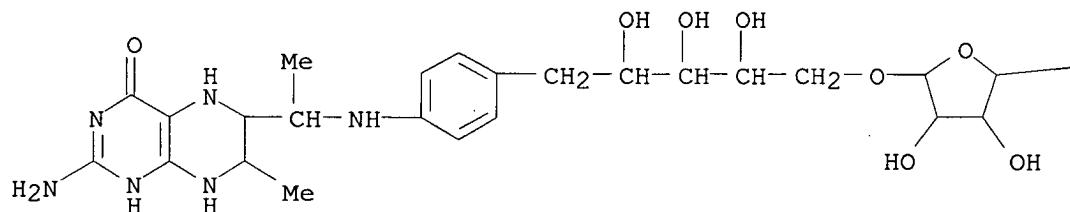
IT **92481-94-2, 5,6,7,8-Tetrahydromethanopterin 367527-39-7**

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (pos. selection of transformants by auxotroph complementation with enzymic precursor conversion)

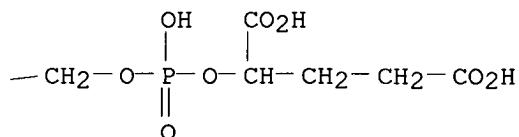
RN 92481-94-2 CAPLUS

CN D-Ribitol, 1-[4-[[1R]-1-[(6S,7S)-2-amino-1,4,5,6,7,8-hexahydro-7-methyl-4-oxo-6-pteridinyl]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]- α -D-ribofuranosyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

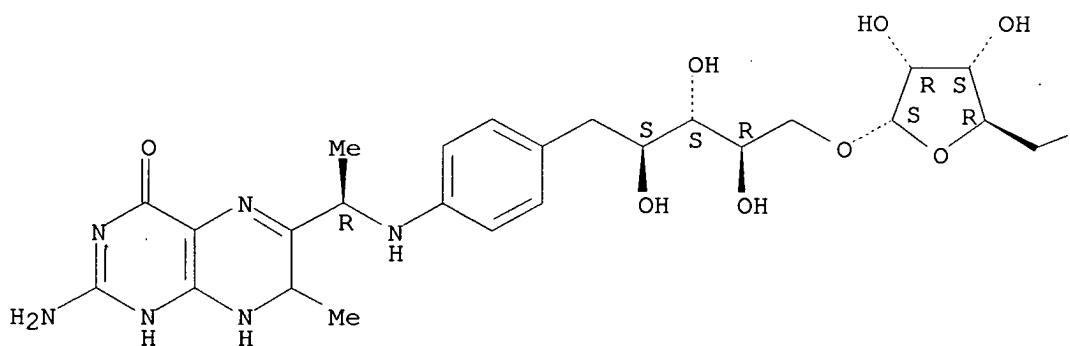


RN 367527-39-7 CAPLUS

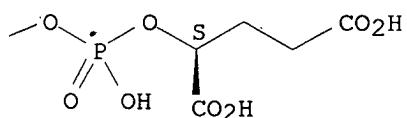
CN D-Ribitol, 1-[4-[(1R)-[1-(2-amino-1,4,7,8-tetrahydro-7-methyl-4-oxo-6-pteridinyl)ethyl]amino]phenyl]-1-deoxy-5-O-[(1S)-1,3-dicarboxypropoxy]hydroxypyrophosphoryl]-α-D-ribofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:598006 CAPLUS
 DOCUMENT NUMBER: 135:180926
 TITLE: Process for selectively producing 1-phosphorylated sugar derivative anomer and process for producing nucleoside
 INVENTOR(S): Komatsu, Hironori; Awano, Hirokazu; Fukazawa, Nobuyuki; Ito, Kiyoshi; Ikeda, Ichirou; Araki, Tadashi; Nakamura, Takeshi; Asano, Tamotsu; Fujiwara, Junya; Ando, Tomoyuki; Tsuchiya, Katsutoshi; Maruyama, Kyoko; Umetani, Hideki; Yamauchi, Takahiro; Miyake, Hitoki
 PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan
 SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

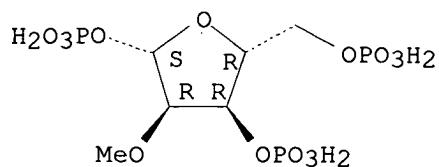
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 2001058920 | A2 | 20010816 | WO 2001-JP968 | 20010213 <-- |
| WO 2001058920 | A3 | 20011108 | | |
| W: BR, CA, CN, IN, KR, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| CA 2366513 | A1 | 20010816 | CA 2001-2366513 | 20010213 <-- |
| EP 1178051 | A2 | 20020206 | EP 2001-904386 | 20010213 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2002205996 | A | 20020723 | JP 2001-35749 | 20010213 <-- |
| BR 2001004461 | A | 20020806 | BR 2001-4461 | 20010213 <-- |
| US 2002193314 | A1 | 20021219 | US 2002-958305 | 20020507 <-- |
| US 7038039 | B2 | 20060502 | | |
| US 2006094869 | A1 | 20060504 | US 2005-287212 | 20051128 |
| PRIORITY APPLN. INFO.: | | | JP 2000-33212 | A 20000210 |
| | | | JP 2000-67333 | A 20000310 |
| | | | JP 2000-341960 | A 20001109 |
| | | | WO 2001-JP968 | W 20010213 |
| | | | US 2002-958305 | A3 20020507 |

OTHER SOURCE(S): CASREACT 135:180926; MARPAT 135:180926
 IT 354823-76-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (selective preparation of 1-phosphorylated sugar derivative anomer by phosphorylation, isomerization, and fractional crystallization and process for producing nucleoside by glycosylation using nucleoside phosphorylase)
 RN 354823-76-0 CAPLUS
 CN β -D-Ribofuranose, 2-O-methyl-, tris(dihydrogen phosphate), compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

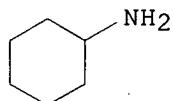
CRN 354823-75-9
CMF C6 H15 O14 P3

Absolute stereochemistry.



CM 2

CRN 108-91-8
CMF C6 H13 N



L6 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:480629 CAPLUS
DOCUMENT NUMBER: 135:87156
TITLE: Antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and the Warburg effect
INVENTOR(S): Bucala, Richard J.; Chesney, Jason A.; Mitchell, Robert A.
PATENT ASSIGNEE(S): The Picower Institute for Medical Research, USA
SOURCE: U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 961,578.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|--------------|
| US 6255046 | B1 | 20010703 | US 1998-183846 | 19981030 <-- |
| US 6413939 | B1 | 20020702 | US 1997-961578 | 19971031 <-- |
| US 6596851 | B1 | 20030722 | US 2000-670216 | 20000925 <-- |
| AU 2003204075 | A1 | 20030612 | AU 2003-204075 | 20030507 <-- |
| US 2003228568 | A1 | 20031211 | US 2003-449512 | 20030602 <-- |

PRIORITY APPLN. INFO.:

| | |
|----------------|-------------|
| US 1997-961578 | A2 19971031 |
| AU 1999-13707 | A3 19981030 |
| US 1998-183846 | A3 19981030 |
| US 2000-670216 | A1 20000925 |

IT **79082-92-1**, Fructose 2,6-bisphosphate

RL: ANT (Analyte); FMU (Formation, unclassified); ANST (Analytical study);

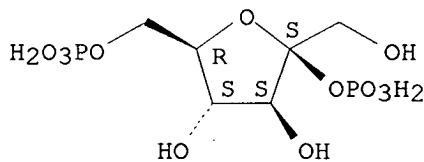
FORM (Formation, nonpreparative)

(antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

RN 79082-92-1 CAPLUS

CN β-D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:260079 CAPLUS

DOCUMENT NUMBER: 135:89068

TITLE: A Reexamination of the Substrate Utilization of 2-Thioorotidine-5'-monophosphate by Yeast Orotidine-5'-Monophosphate Decarboxylase

AUTHOR(S): Smiley, Jeffrey A.; Hay, Kelly M.; Levison, Bruce S.

CORPORATE SOURCE: Department of Chemistry, Youngstown State University, Youngstown, OH, 44555, USA

SOURCE: Bioorganic Chemistry (2001), 29(2), 96-106

CODEN: BOCMBM; ISSN: 0045-2068

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:89068

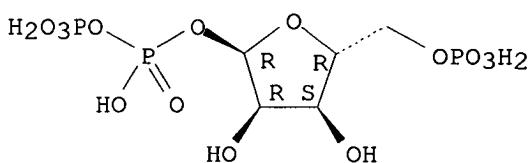
IT **7540-64-9**, 5-Phosphorylribose-1-pyrophosphate

RL: RCT (Reactant); RACT (Reactant or reagent)
(improved synthesis of 2-thioorotidine-5'-monophosphate)

RN 7540-64-9 CAPLUS

CN α -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:48271 CAPLUS

DOCUMENT NUMBER: 134:262712

TITLE: O-ADP-ribosylation in the NAD/NADase system:
2-alkanols as efficient substrates

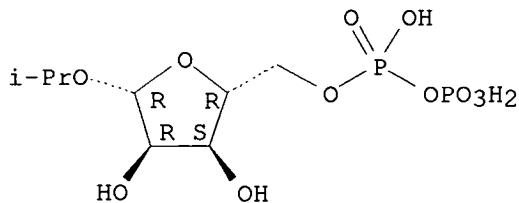
AUTHOR(S): Tono-Oka, Shuichi; Hatakeyama, Masanori

CORPORATE SOURCE: Division of Molecular Oncology, Institute for Genetic Medicine, Hokkaido University, Sapporo, 060-0815, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (2001), 49(1), 123-125

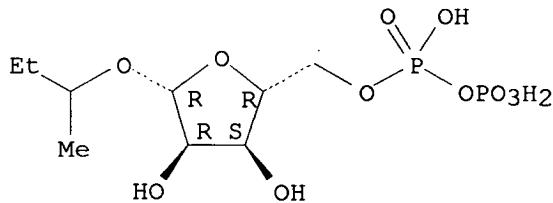
CODEN: CPBTAL; ISSN: 0009-2363
 PUBLISHER: Pharmaceutical Society of Japan
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 134:262712
 IT 331830-75-2P 331830-77-4P 331830-79-6P
331830-81-0P 331830-83-2P 331830-85-4P
331830-87-6P 331830-88-7P
 RL: BPN (Biosynthetic preparation); BSU (Biological study,
 unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM
 (Formation, nonpreparative); PREP (Preparation)
 (alkanol specificity in ADP-ribosylation by NAD/NADase system)
 RN 331830-75-2 CAPLUS
 CN β -D-Ribofuranoside, 1-methylethyl, 5-(trihydrogen diphosphate) (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



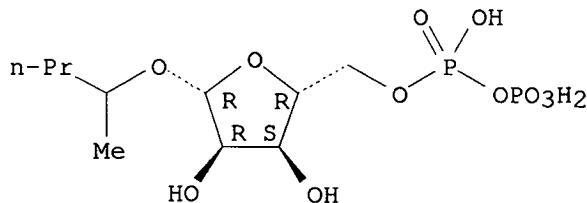
RN 331830-77-4 CAPLUS
 CN β -D-Ribofuranoside, 1-methylpropyl, 5-(trihydrogen diphosphate) (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



RN 331830-79-6 CAPLUS
 CN β -D-Ribofuranoside, 1-methylbutyl, 5-(trihydrogen diphosphate) (9CI)
 (CA INDEX NAME)

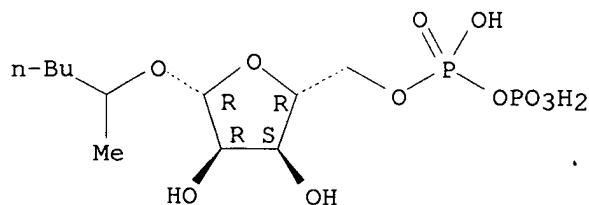
Absolute stereochemistry.



RN 331830-81-0 CAPLUS

CN β -D-Ribofuranoside, 1-methylpentyl, 5-(trihydrogen diphosphate) (9CI)
(CA INDEX NAME)

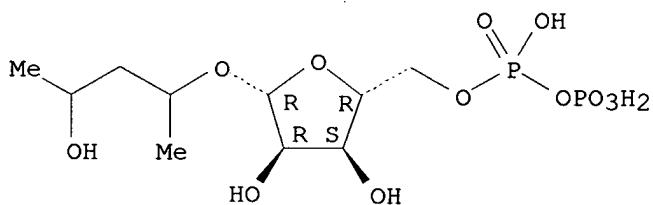
Absolute stereochemistry.



RN 331830-83-2 CAPLUS

CN β -D-Ribofuranoside, 3-hydroxy-1-methylbutyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

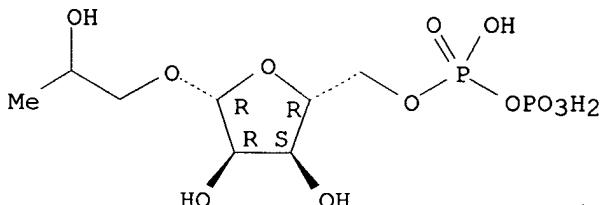
Absolute stereochemistry.



RN 331830-85-4 CAPLUS

CN β -D-Ribofuranoside, 2-hydroxypropyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

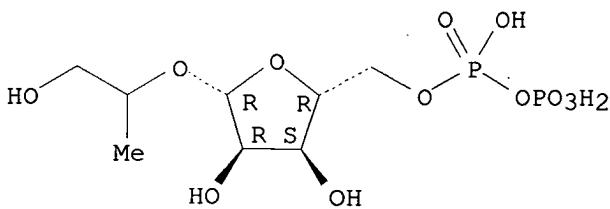
Absolute stereochemistry.



RN 331830-87-6 CAPLUS

CN β -D-Ribofuranoside, 2-hydroxy-1-methylethyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

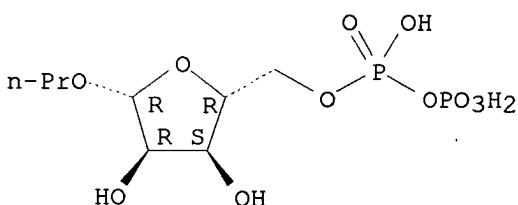
Absolute stereochemistry.



RN 331830-88-7 CAPLUS

CN β -D-Ribofuranoside, propyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:30117 CAPLUS

DOCUMENT NUMBER: 134:204897

TITLE: Relationship between glycolysis and exopolysaccharide biosynthesis in *Lactococcus lactis*

AUTHOR(S): Ramos, Ana; Boels, Ingeborg C.; De Vos, Willem M.; Santos, Helena

CORPORATE SOURCE: Instituto de Tecnologia Quimica e Biologica/Universidade Nova de Lisboa and Instituto de Biologia Experimental e Tecnologica, Oeiras, 2780-156, Port.

SOURCE: Applied and Environmental Microbiology (2001), 67(1), 33-41

CODEN: AEMIDF; ISSN: 0099-2240

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 7540-64-9, 5-Phosphorylribose 1-pyrophosphate

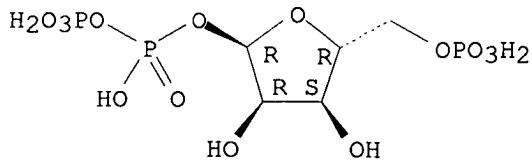
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(relationship between glycolysis and exopolysaccharide biosynthesis in *Lactococcus lactis*)

RN 7540-64-9 CAPLUS

CN α -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

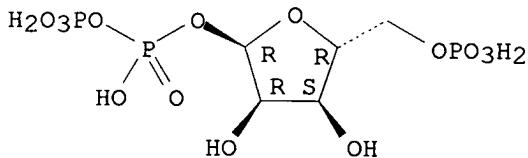
Absolute stereochemistry.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:445799 CAPLUS
 DOCUMENT NUMBER: 133:189782
 TITLE: The two *Toxoplasma gondii* hypoxanthine-guanine phosphoribosyltransferase isozymes form heterotetramers
 AUTHOR(S): White, E. Lucile; Ross, Larry J.; Davis, Richard L.; Ginkel, Sabrina Zywno-Van; Vasanthakumar, Geetha; Borhani, David W.
 CORPORATE SOURCE: Drug Discovery Division, Southern Research Institute, Birmingham, AL, 35205, USA
 SOURCE: Journal of Biological Chemistry (2000), 275(25), 19218-19223
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular Biology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 7540-64-9, PRPP
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (The two *Toxoplasma gondii* hypoxanthine-guanine phosphoribosyltransferase isoenzymes form heterotetramers)
 RN 7540-64-9 CAPLUS
 CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:325358 CAPLUS
 DOCUMENT NUMBER: 133:101361
 TITLE: N- and C-termini modulate the effects of pH and phosphorylation on hepatic 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase
 AUTHOR(S): Kurland, Irwin J.; Chapman, Brett; El-Maghrabi, M. Raafat

CORPORATE SOURCE: Department of Internal Medicine, Division of Endocrinology and Metabolism, Diabetes and Metabolism Signaling Laboratory, Molecular Biology Institute, UCLA, University of California at Los Angeles (UCLA) School of Medicine, Los Angeles, CA, 90095, USA

SOURCE: Biochemical Journal (**2000**), 347(2), 459-467

CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal

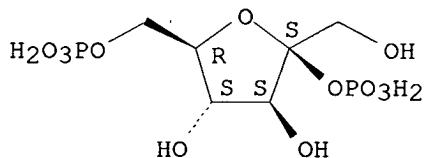
LANGUAGE: English

IT **79082-92-1**, Fructose-2,6-bisphosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (N- and C-termini modulate the effects of pH and phosphorylation on hepatic 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase)

RN 79082-92-1 CAPLUS

CN β-D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

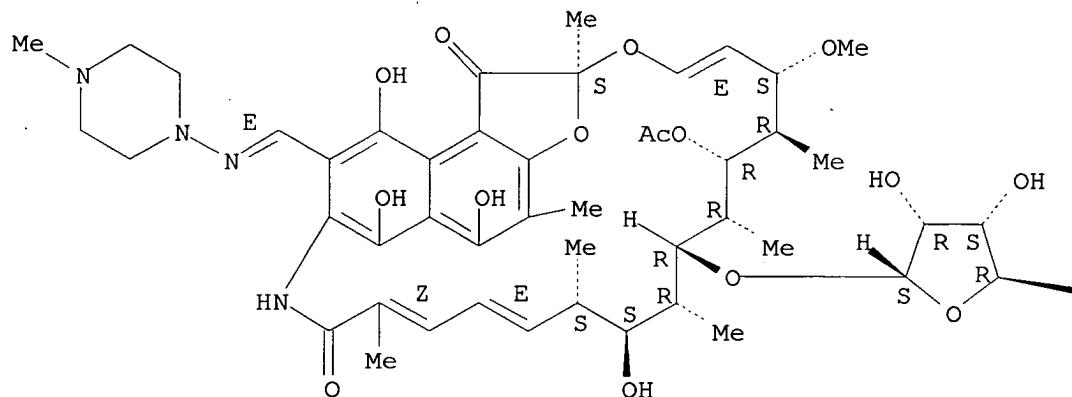
L6 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:225671 CAPLUS
 DOCUMENT NUMBER: 133:17738
 TITLE: Structures of ADP-ribosylated rifampicin and its metabolite: intermediates of rifampicin-ribosylation by *Mycobacterium smegmatis* DSM43756
 AUTHOR(S): Morisaki, Naoko; Hashimoto, Yuichi; Furihata, Kazuo; Imai, Tamae; Watanabe, Kayo; Mikami, Yuzuru; Yazawa, Katsukiyo; Ando, Akikazu; Nagata, Yoshiho; Dabbs, Eric R.
 CORPORATE SOURCE: Institute of Molecular and Cellular Biosciences, The University of Tokyo, Tokyo, 113-0032, Japan
 SOURCE: Journal of Antibiotics (**2000**), 53(3), 269-275
 CODEN: JANTAJ; ISSN: 0021-8820
 PUBLISHER: Japan Antibiotics Research Association
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **221910-89-0P 263706-84-9P**
 RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
 (structures of ADP-ribosylated rifampicin and its metabolite and intermediates of rifampicin-ribosylation by *Mycobacterium smegmatis* DSM43756)
 RN 221910-89-0 CAPLUS
 CN Rifamycin, 3-[(E)-[(4-methyl-1-piperazinyl)imino]methyl]-23-O-α-D-ribofuranosyl-, 5'-P'-ester with adenosine 5'-(trihydrogen

diphosphate) (9CI) (CA INDEX NAME)

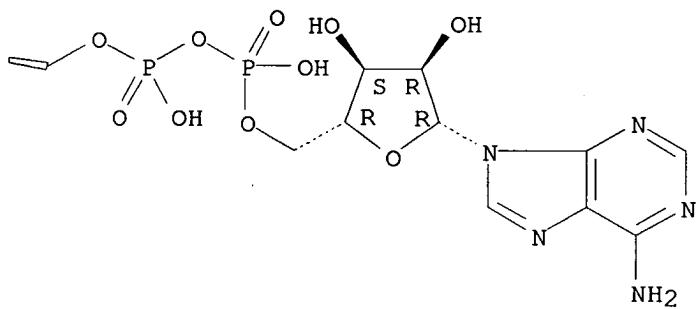
Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B

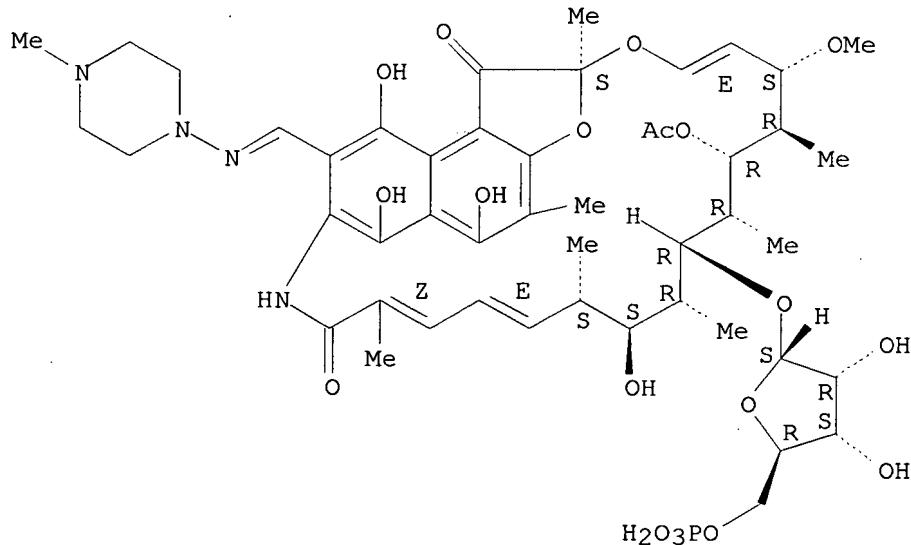


RN 263706-84-9 CAPLUS

CN Rifamycin, 3-[(4-methyl-1-piperazinyl)imino]methyl]-23-O-(5-O-phosphono- α -D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.



IT **273202-15-6P**

RL: **BPN (Biosynthetic preparation)**; PRP (Properties); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(structures of ADP-ribosylated rifampicin and its metabolite and intermediates of rifampicin-ribosylation by *Mycobacterium smegmatis* DSM43756)

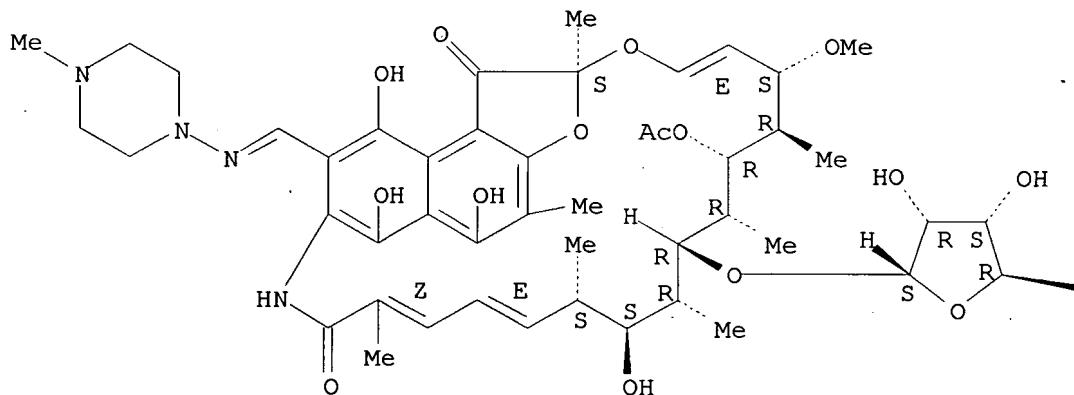
RN 273202-15-6 CAPLUS

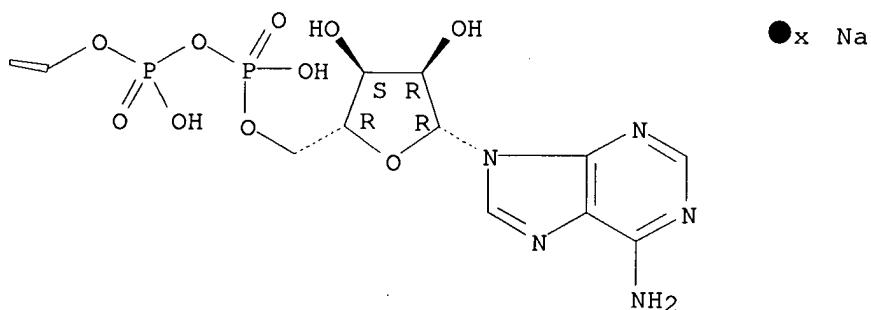
CN Rifamycin, 3-[[[4-methyl-1-piperazinyl]imino]methyl]-23-O- α -D-ribofuranosyl-, 5'-P'-ester with adenosine 5'-(trihydrogen diphosphate), sodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

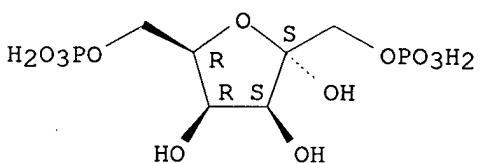




REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:222843 CAPLUS
 DOCUMENT NUMBER: 133:27981
 TITLE: Exploring substrate binding and discrimination in fructose 1,6-bisphosphate and tagatose 1,6-bisphosphate aldolases
 AUTHOR(S): Zgiby, Shaza M.; Thomson, Graeme J.; Qamar, Seema; Berry, Alan
 CORPORATE SOURCE: School of Biochemistry and Molecular Biology, University of Leeds, Leeds, LS2 9JT, UK
 SOURCE: European Journal of Biochemistry (2000), 267(6), 1858-1869
 CODEN: EJBCAI; ISSN: 0014-2956
 PUBLISHER: Blackwell Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **148219-45-8**
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (exploring substrate binding and discrimination in fructose 1,6-bisphosphate and tagatose 1,6-bisphosphate aldolases)
 RN 148219-45-8 CAPLUS
 CN α-D-Tagatofuranose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:53860 CAPLUS
DOCUMENT NUMBER: 132:104686
TITLE: Gene encoding sucrose phosphate synthase from Synechocystis with general nucleoside diphosphoglucose donor specificity
INVENTOR(S): Furbank, Robert; Lunn, John
PATENT ASSIGNEE(S): Commonwealth Scientific Industrial and Research Organisation, Australia
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|-----------------|--------------|
| WO 2000003006 | A1 | 20000120 | WO 1999-AU557 | 19990708 <-- |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| AU 9947624 | A | 20000201 | AU 1999-47624 | 19990708 <-- |
| PRIORITY APPLN. INFO.: | | | AU 1998-4578 | A 19980708 |
| | | | WO 1999-AU557 | W 19990708 |

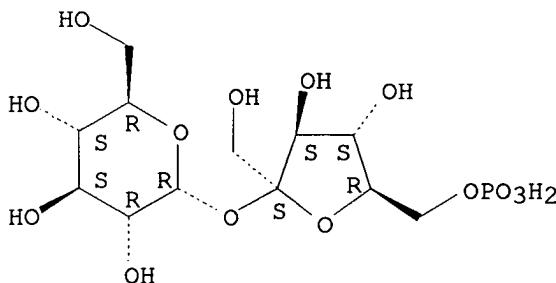
IT **4549-10-4P**, Sucrose 6'-phosphate

RL: BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(gene encoding sucrose phosphate synthase from Synechocystis with general nucleoside diphosphoglucose donor specificity)

RN 4549-10-4 CAPLUS

CN α -D-Glucopyranoside, 6-O-phosphono- β -D-fructofuranosyl (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:12727 CAPLUS
DOCUMENT NUMBER: 132:77663
TITLE: Method for producing metabolites biologically synthesized via phosphoribosyl pyrophosphate
INVENTOR(S): Ikeda, Masato; Okamoto, Kazuyuki; Nakano, Tetsuo; Kamada, Nozomu
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

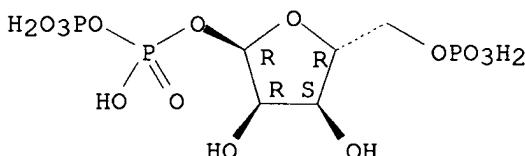
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| EP 969096 | A1 | 20000105 | EP 1999-112854 | 19990702 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2000014396 | A | 20000118 | JP 1998-187992 | 19980703 <-- |
| CA 2276816 | A1 | 20000103 | CA 1999-2276816 | 19990630 <-- |
| US 6258554 | B1 | 20010710 | US 1999-347808 | 19990722 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1998-187992 | A 19980703 |

IT **7540-64-9**, Phosphoribosyl pyrophosphate
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(producing metabolites biol. synthesized via phosphoribosyl pyrophosphate)

RN 7540-64-9 CAPLUS

CN α -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

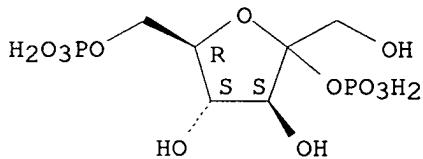
L6 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:819500 CAPLUS
DOCUMENT NUMBER: 132:74521
TITLE: Alteration of plant metabolism using modified Giardia lamblia pyrophosphate-dependent phosphofructokinase (PFP)
INVENTOR(S): Blakeley, Stephen; Dennis, David T.; King, Steven

PATENT ASSIGNEE(S): Performance Plants, Inc., Can.
 SOURCE: PCT Int. Appl., 55 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 9967392 | A2 | 19991229 | WO 1999-CA570 | 19990618 <-- |
| WO 9967392 | A3 | 20000316 | | |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ,
TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 9942548 | A | 20000110 | AU 1999-42548 | 19990618 <-- |
| PRIORITY APPLN. INFO.: US 1998-89927P P 19980619
WO 1999-CA570 W 19990618 | | | | |

IT 77164-51-3, Fructose-2,6-bisphosphate
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (modified PFP which is insensitive to; alteration of plant metabolism using
 modified Giardia lamblia pyrophosphate-dependent phosphofructokinase
 (PFP))
 RN 77164-51-3 CAPLUS
 CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

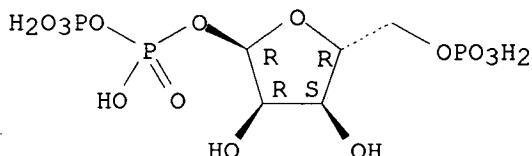
Absolute stereochemistry.



L6 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:510801 CAPLUS
 DOCUMENT NUMBER: 131:268873
 TITLE: Tryptophan Fluorescence Monitors Multiple
Conformational Changes Required for Glutamine
Phosphoribosylpyrophosphate Amidotransferase
Interdomain Signaling and Catalysis
 AUTHOR(S): Chen, Sihong; Burgner, John W.; Krahn, Joseph M.;
Smith, Janet L.; Zalkin, Howard
 CORPORATE SOURCE: Departments of Biochemistry and Biological Sciences,
Purdue University, West Lafayette, IN, 47907, USA
 SOURCE: Biochemistry (1999), 38(36), 11659-11669
 CODEN: BICHAW; ISSN: 0006-2960
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal

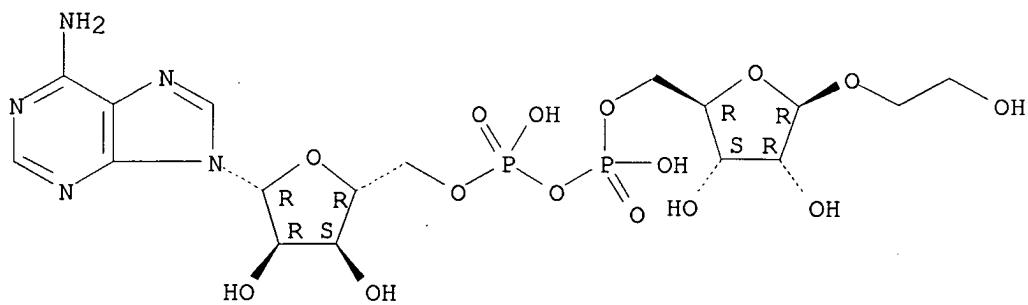
LANGUAGE: English
 IT 7540-64-9, Phosphoribosylpyrophosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
 (tryptophan fluorescence monitors multiple conformational changes required for glutamine phosphoribosylpyrophosphate amidotransferase interdomain signaling and catalysis)
 RN 7540-64-9 CAPLUS
 CN α -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:137901 CAPLUS
 DOCUMENT NUMBER: 130:223531
 TITLE: Terminal diols as efficient substrates for transglycosylation activity of NAD glycohydrolase
 AUTHOR(S): Tono-oka, Shuichi; Azuma, Ichiro
 CORPORATE SOURCE: Section of Chemistry, Institute of Immunological Science, Hokkaido University, Sapporo, 060-0815, Japan
 SOURCE: Nucleosides & Nucleotides (1999), 18(1), 39-49
 CODEN: NUNUD5; ISSN: 0732-8311
 PUBLISHER: Marcel Dekker, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 130:223531
 IT 221167-43-7P 221167-45-9P 221167-48-2P
221167-51-7P 221167-53-9P 221167-55-1P
221167-58-4P 221167-61-9P
 RL: BPN (Biosynthetic preparation); BIOL (Biological study);
 PREP (Preparation)
 (terminal diols as efficient substrates for transglycosidational activity of NAD glycohydrolase)
 RN 221167-43-7 CAPLUS
 CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with 2-hydroxyethyl β -D-ribofuranoside (9CI) (CA INDEX NAME)

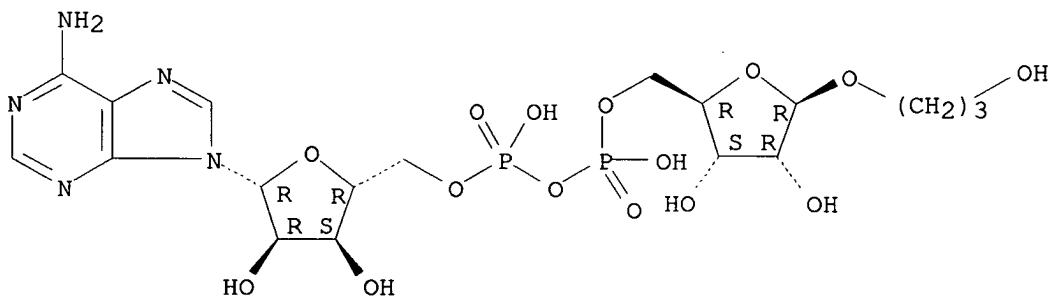
Absolute stereochemistry.



RN 221167-45-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with
3-hydroxypropyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

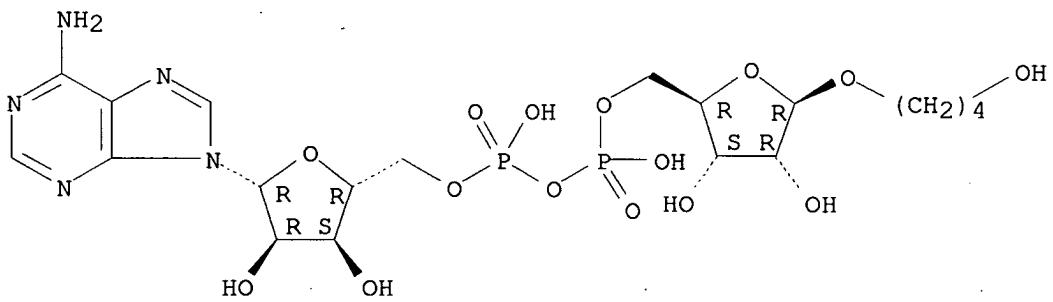
Absolute stereochemistry.



RN 221167-48-2 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with
4-hydroxybutyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

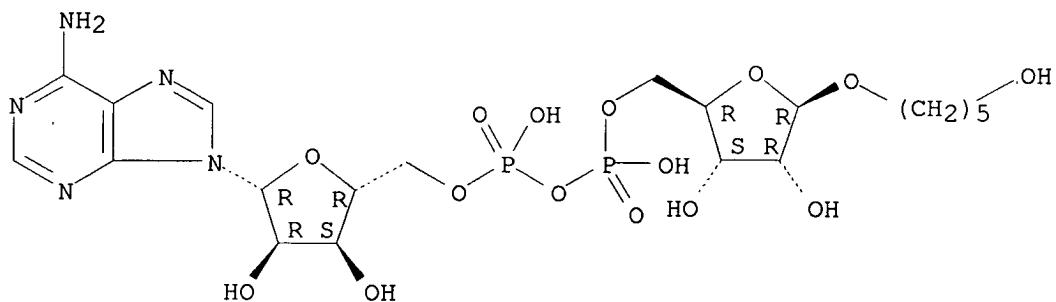
Absolute stereochemistry.



RN 221167-51-7 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with
5-hydroxpentyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

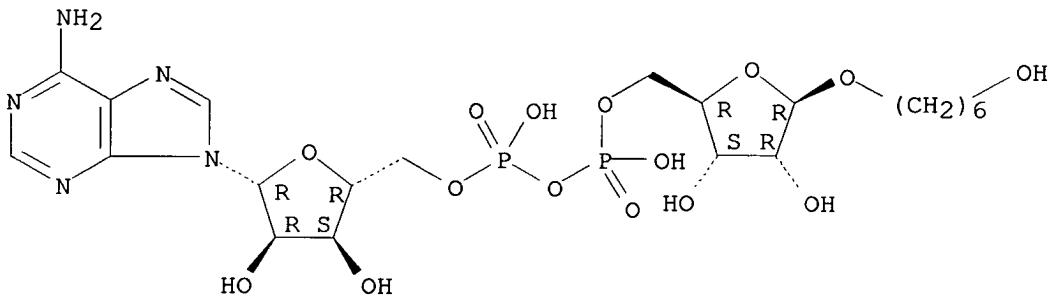
Absolute stereochemistry.



RN 221167-53-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with
6-hydroxyhexyl β -D-ribofuranoside (9CI) (CA INDEX NAME)

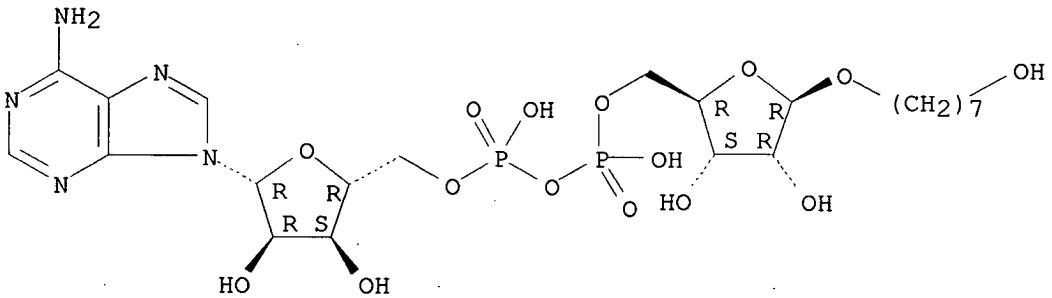
Absolute stereochemistry.



RN 221167-55-1 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with
7-hydroxyheptyl β -D-ribofuranoside (9CI) (CA INDEX NAME)

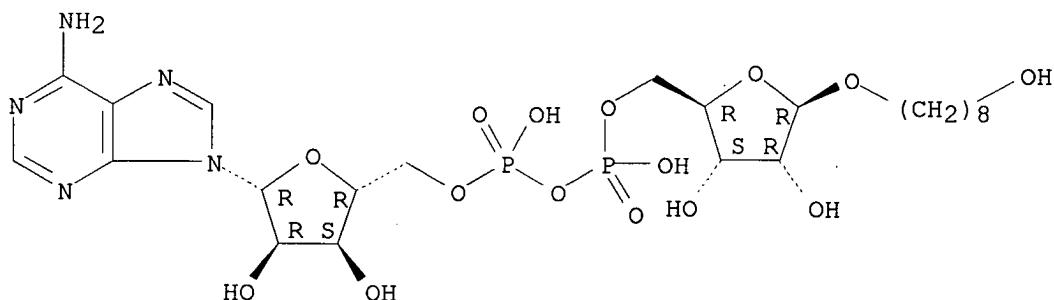
Absolute stereochemistry.



RN 221167-58-4 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with
8-hydroxyoctyl β -D-ribofuranoside (9CI) (CA INDEX NAME)

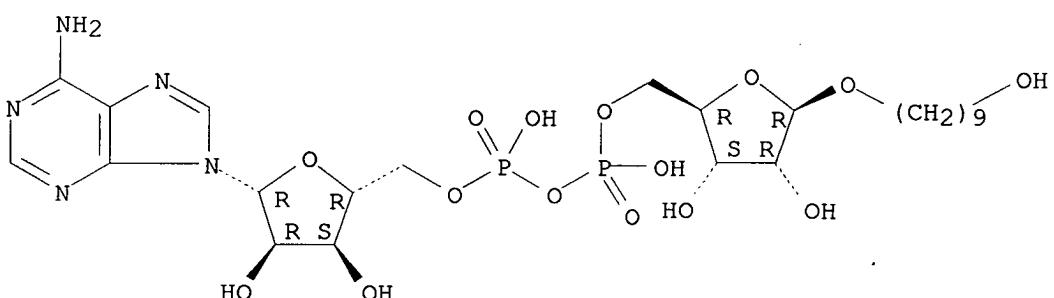
Absolute stereochemistry.



RN 221167-61-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5'-ester with
9-hydroxynonyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:99561 CAPLUS

DOCUMENT NUMBER: 130:264678

TITLE: ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene

AUTHOR(S): Quan, Selwyn; Imai, Tamae; Mikami, Yuzuru; Yazawa, Katsukiyo; Dabbs, Eric R.; Morisaki, Naoko; Iwasaki, Shigeo; Hashimoto, Yuichi; Furihata, Kazuo

CORPORATE SOURCE: Research Center for Pathogenic Fungi and Microbial Toxicoses, Chiba University, Chiba, 260-8673, Japan

SOURCE: Antimicrobial Agents and Chemotherapy (1999), 43(1), 181-184

PUBLISHER: CODEN: AMACQ; ISSN: 0066-4804

DOCUMENT TYPE: American Society for Microbiology

LANGUAGE: English

IT **221910-89-0**

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); BIOL (Biological study); FORM (Formation, nonpreparative) (ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

RN 221910-89-0 CAPLUS

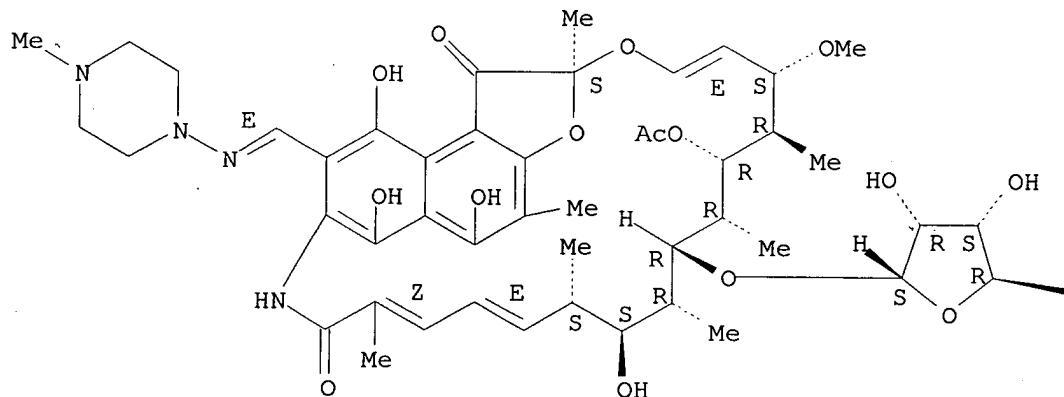
CN Rifamycin, 3-[{(E)-[(4-methyl-1-piperazinyl)imino]methyl]-23-O-α-D-

ribofuranosyl-, 5'-P'-ester with adenosine 5'-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

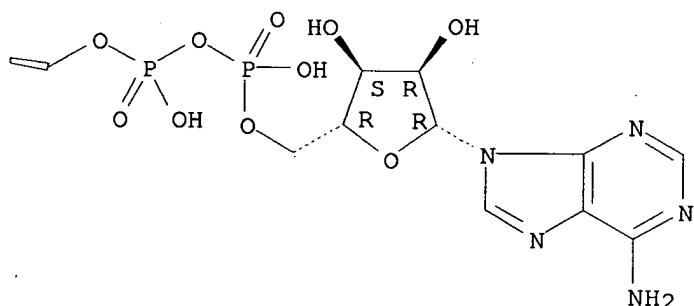
Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

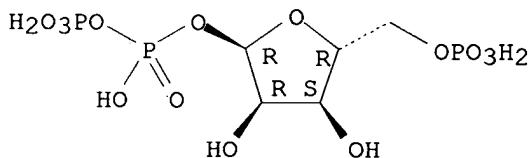
ACCESSION NUMBER: 1999:37429 CAPLUS

DOCUMENT NUMBER: 130:219774

TITLE: Cloning, overproduction, and purification of native and mutant recombinant yeast orotate phosphoribosyltransferase and the demonstration from magnetization inversion transfer that a proposed oxocarbocation intermediate does not have a kinetic lifetime

AUTHOR(S): Witte, John F.; Tsou, Raymond; McClard, Ronald W.
 CORPORATE SOURCE: Arthur F. Scott Laboratory of Chemistry, Reed College,
 Portland, OR, 97202-8199, USA
 SOURCE: Archives of Biochemistry and Biophysics (1999)
), 361(1), 106-112
 CODEN: ABBIA4; ISSN: 0003-9861
 PUBLISHER: Academic Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **7540-64-9**, 5-Phosphorylribose 1- α -diphosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
 (Biological study); PROC (Process)
 (magnetization inversion transfer studies on orotate
 phosphoribosyltransferase show that a proposed oxocarbocation
 intermediate does not have a kinetic lifetime)
 RN 7540-64-9 CAPLUS
 CN α -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen
 diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



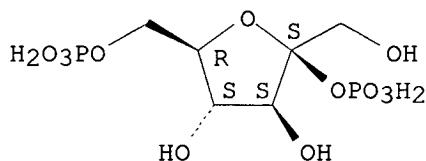
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:786200 CAPLUS
 DOCUMENT NUMBER: 130:86154
 TITLE: Purification of fructose 2,6-bisphosphate by using monovalent alkali metal salt solutions as eluting solutions
 INVENTOR(S): Fukushima, Yasumasa; Hayashi, Mayumi; Nakashima, Hiroshi
 PATENT ASSIGNEE(S): Unitika Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| JP 10324693 | A | 19981208 | JP 1997-134192 | 19970523 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1997-134192 | 19970523 |
| IT 79082-92-1P , Fructose 2,6-bisphosphate | | | | |
| RL: <u>BPN (Biosynthetic preparation)</u> ; PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) | | | | |
| | | | | |
| | | | | |
| RN 79082-92-1 CAPLUS | | | | |

CN β-D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:768102 CAPLUS

DOCUMENT NUMBER: 130:13262

TITLE: Purification of fructose 2,6-bisphosphate using aldolase

INVENTOR(S): Fukushima, Yasumasa; Hayashi, Mayumi; Nakajima, Hiroshi

PATENT ASSIGNEE(S): Unitika Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

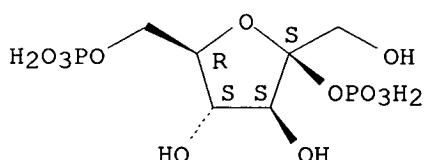
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| JP 10316698 | A | 19981202 | JP 1997-123721 | 19970514 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1997-123721 | 19970514 |
| IT 79082-92-1P , Fructose 2,6-bisphosphate | | | | |
| RL: BPN (Biosynthetic preparation) ; PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(separation of fructose 2,6-bisphosphate from 1,6-bisphosphate isomer using enzymes) | | | | |

RN 79082-92-1 CAPLUS

CN β-D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:763387 CAPLUS

DOCUMENT NUMBER: 130:92092

TITLE: Regulation of an Escherichia coli/mammalian chimeric carbamoyl-phosphate synthetase

AUTHOR(S): Sahay, Nisha; Guy, Hedeel I.; Liu, Xin; Evans, David R.

CORPORATE SOURCE: Department of Biochemistry and Molecular Biology,

Wayne State University School of Medicine, Detroit,
MI, 48201, USA

SOURCE: Journal of Biological Chemistry (1998),
273(47), 31195-31202

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

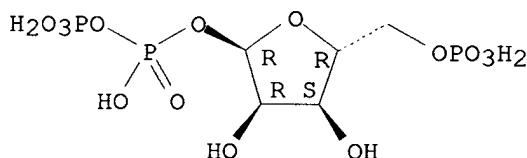
IT **7540-64-9**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(regulation of an Escherichia coli/mammalian chimeric
carbamoyl-phosphate synthetase)

RN 7540-64-9 CAPLUS

CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:468435 CAPLUS

DOCUMENT NUMBER: 129:227412

TITLE: Mechanism for the Enzymic Formation of
4-(β-D-Ribofuranosyl)aminobenzene 5'-Phosphate
during the Biosynthesis of Methanopterin

AUTHOR(S): Rasche, Madeline E.; White, Robert H.

CORPORATE SOURCE: Department of Biochemistry, Virginia Polytechnic
Institute and State University, Blacksburg, VA,
24061-0308, USA

SOURCE: Biochemistry (1998), 37(32), 11343-11351
CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

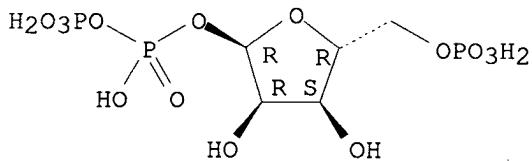
IT **7540-64-9, Prpp**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(mechanism for the enzymic formation of ribofuranosylaminobenzene
phosphate during the biosynthesis of methanopterin)

RN 7540-64-9 CAPLUS

CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



IT **79484-89-2**, Methanopterin

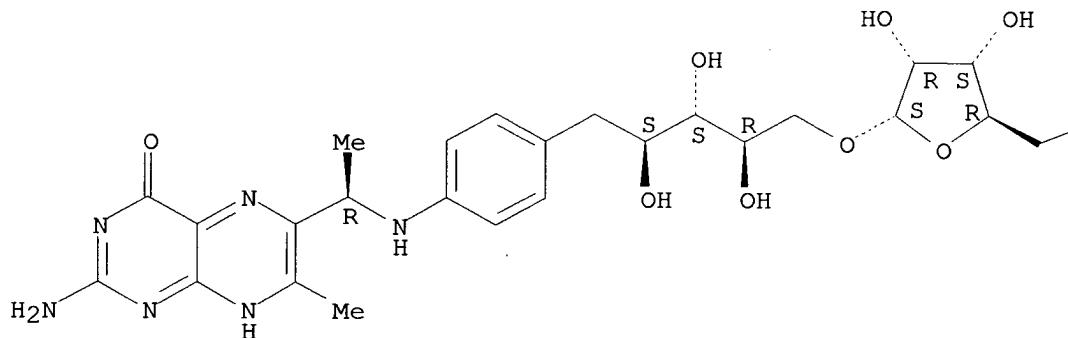
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mechanism for the enzymic formation of ribofuranosylaminobenzene
phosphate during the biosynthesis of methanopterin)

RN 79484-89-2 CAPLUS

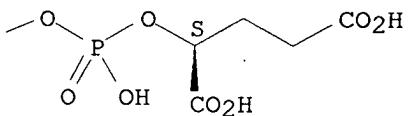
CN D-Ribitol, 1-[4-[[[(1R)-1-(2-amino-1,4-dihydro-7-methyl-4-oxo-6-pteridinyl)ethyl]amino]phenyl]-1-deoxy-5-O-[[[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]- α -D-ribofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT:

41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:147674 CAPLUS

DOCUMENT NUMBER: 128:291996

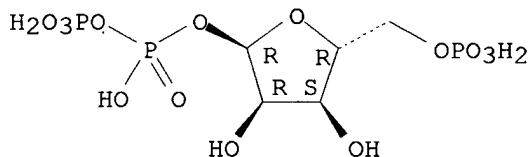
TITLE: Conversion of a Cosubstrate to an Inhibitor:
Phosphorylation Mutants of Nicotinic Acid Phosphoribosyltransferase

AUTHOR(S): Rajavel, Mathumathi; Lalo, Dominique; Gross, Jeffrey W.; Grubmeyer, Charles

CORPORATE SOURCE: Fels Research Institute and Department of

SOURCE: Biochemistry, Temple University School of Medicine,
 Philadelphia, PA, 19140, USA
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **7540-64-9**, 5-Phosphoribosyl 1-pyrophosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP
 (Properties); BIOL (Biological study); PROC (Process)
 (preparation and kinetic properties of mutant nicotinic acid
 phosphoribosyltransferases (NAPRTase) lacking autophosphorylatable
 His-219)
 RN 7540-64-9 CAPLUS
 CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen
 diphosphate) (CA INDEX NAME)

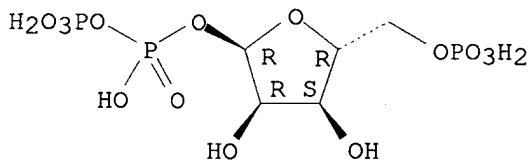
Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:713625 CAPLUS
 DOCUMENT NUMBER: 128:45125
 TITLE: Cloning and characterization of the arginine-specific carbamoyl-phosphate synthetase from *Bacillus stearothermophilus*
 AUTHOR(S): Yang, Hsiuchin; Park, Seung-Moon; Nolan, William G.; Lu, Chung-Dar; Abdelal, Ahmed T.
 CORPORATE SOURCE: Department of Biology, Georgia State University, Atlanta, USA
 SOURCE: European Journal of Biochemistry (1997), 249(2), 443-449
 PUBLISHER: Springer
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **7540-64-9**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (allosteric properties of pyrimidine-specific carbamoylphosphate synthetase from *Bacillus stearothermophilus*)
 RN 7540-64-9 CAPLUS
 CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

34

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:590662 CAPLUS

DOCUMENT NUMBER: 127:278399

TITLE: Enzymic alcoholyzes of NAD. A new type of ADP-ribosylation reaction catalyzed by NAD glycohydrolase

AUTHOR(S): Tonooka, Shuichi; Azuma, Ichiro

CORPORATE SOURCE: Institute Immunological Science, Hokkaido Univ., Sapporo, 060, Japan

SOURCE: Liebigs Annalen/Recueil (1997), (9), 1823-1826

CODEN: LIARFV

PUBLISHER: Wiley-VCH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 127:278399

IT 68521-69-7P 195964-79-5P 195964-80-8P

196512-36-4P 196512-49-9P 196512-59-1P

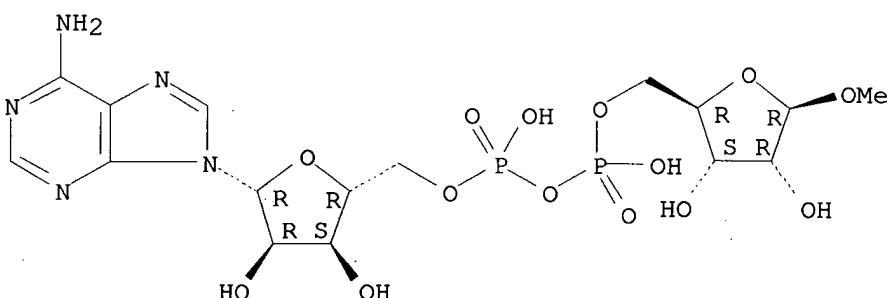
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(ADP-ribosylation catalyzed by NAD glycohydrolase)

RN 68521-69-7 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with methyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

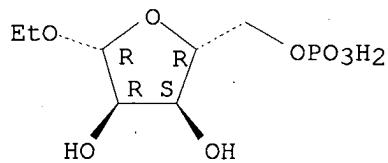
Absolute stereochemistry.



RN 195964-79-5 CAPLUS

CN β-D-Ribofuranoside, ethyl, 5-(dihydrogen phosphate) (CA INDEX NAME)

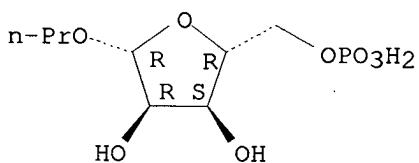
Absolute stereochemistry.



RN 195964-80-8 CAPLUS

CN β -D-Ribofuranoside, propyl, 5-(dihydrogen phosphate) (CA INDEX NAME)

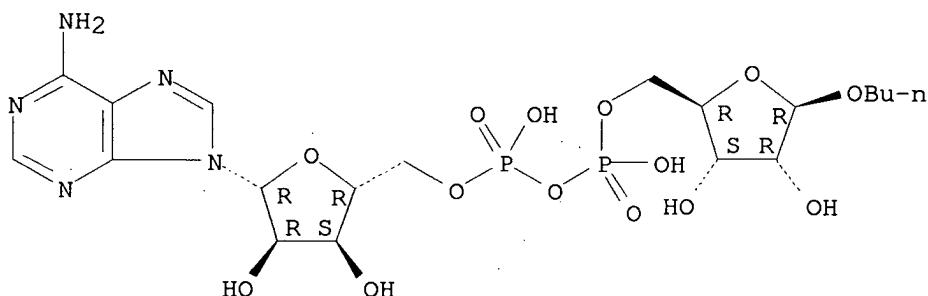
Absolute stereochemistry.



RN 196512-36-4 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P' \rightarrow 5-ester with butyl
 β -D-ribofuranoside (9CI) (CA INDEX NAME)

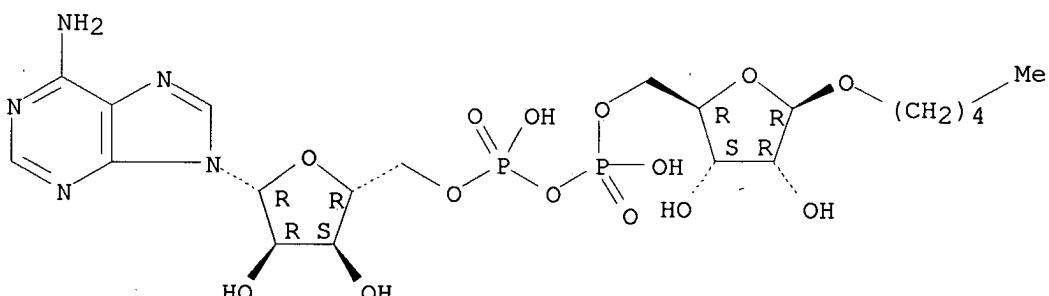
Absolute stereochemistry.



RN 196512-49-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P' \rightarrow 5-ester with pentyl
 β -D-ribofuranoside (9CI) (CA INDEX NAME)

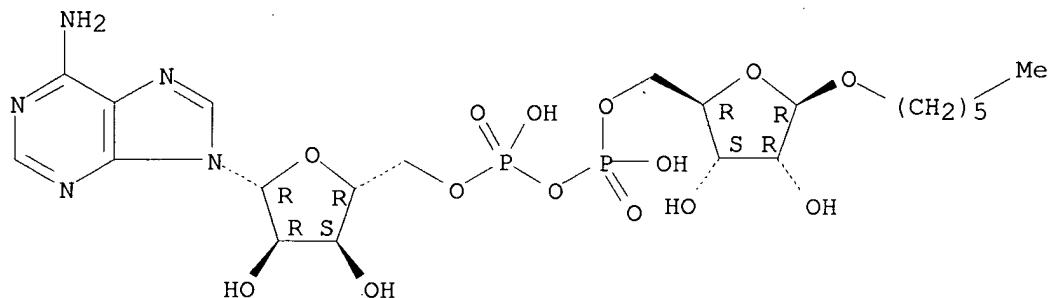
Absolute stereochemistry.



RN 196512-59-1 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with hexyl
β-D-ribofuranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



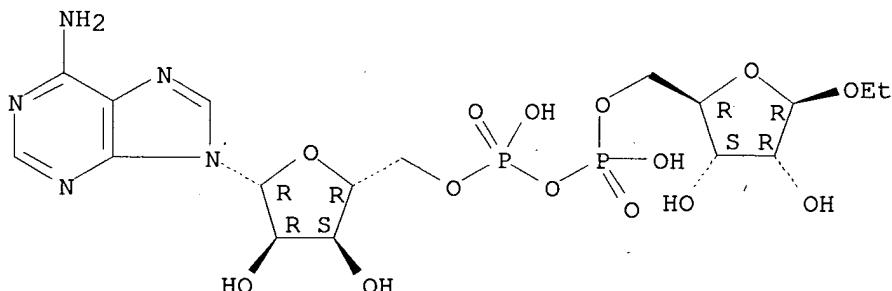
IT **196512-04-6P 196512-24-0P**

RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL
(Biological study); PREP (Preparation); RACT (Reactant or reagent)
(ADP-ribosylation catalyzed by NAD glycohydrolase)

RN 196512-04-6 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with ethyl
β-D-ribofuranoside (9CI) (CA INDEX NAME)

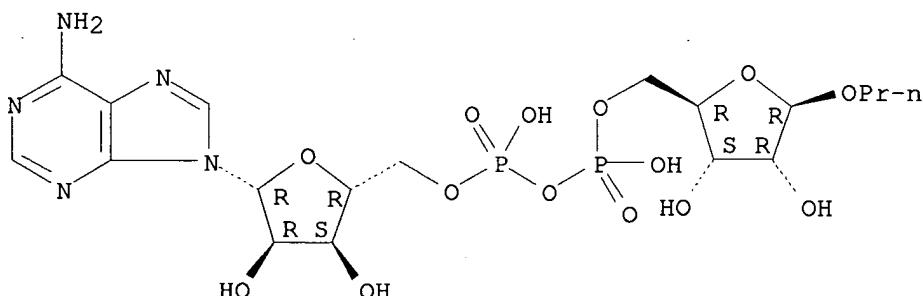
Absolute stereochemistry.



RN 196512-24-0 CAPLUS

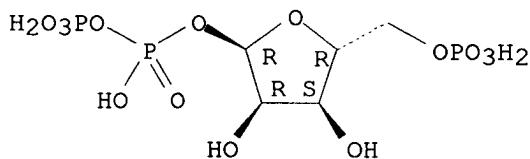
CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with propyl
β-D-ribofuranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:535739 CAPLUS
 DOCUMENT NUMBER: 127:231171
 TITLE: Trapping an activated conformation of mammalian carbamyl-phosphate synthetase
 AUTHOR(S): Guy, Hedeel I.; Evans, David R.
 CORPORATE SOURCE: Department of Biochemistry and Molecular Biology,
 Wayne State University School of Medicine, Detroit,
 MI, 48201, USA
 SOURCE: Journal of Biological Chemistry (1997),
 272(32), 19906-19912
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular
 Biology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 7540-64-9, Phosphoribosyl pyrophosphate
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); BIOL (Biological study)
 (activation of carbamyl phosphate synthetase by; trapping activated
 conformation of mammalian carbamyl-phosphate synthetase)
 RN 7540-64-9 CAPLUS
 CN α-D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



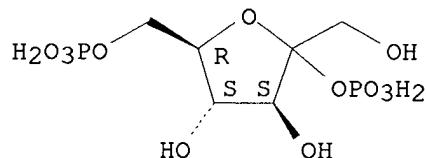
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:397175 CAPLUS
 DOCUMENT NUMBER: 127:32950
 TITLE: Fructose-2,6-bisphosphate manufacture with
 phosphofructokinase
 INVENTOR(S): Yoshikawa, Genichi; Shimoide, Ayako; Nakajima, Hiroshi
 PATENT ASSIGNEE(S): Unitika Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| JP 09107986 | A | 19970428 | JP 1995-275459 | 19951024 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1995-275459 | 19951024 |
| IT <u>77164-51-3P</u> , Fructose-2,6-bisphosphate | | | | |

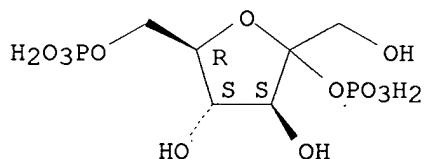
RL: BPN (Biosynthetic preparation); BIOL (Biological study);
PREP (Preparation)
(fructose-2,6-bisphosphate manufacture with phosphofructokinase)
RN 77164-51-3 CAPLUS
CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:278900 CAPLUS
DOCUMENT NUMBER: 126:305686
TITLE: Steady-State Measurements on Fructose
6-Phosphate/Fructose 1,6-Bisphosphate Interconversion
Cycle
AUTHOR(S): Hauri, David C.; Shen, Peidong; Arkin, Adam P.; Ross,
John
CORPORATE SOURCE: Department of Chemistry, Stanford University,
Stanford, CA, 94305, USA
SOURCE: Journal of Physical Chemistry B (1997),
101(19), 3872-3876
CODEN: JPCBFK; ISSN: 1089-5647
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **77164-51-3P**, Fructose 2,6-bisphosphate
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL
(Biological study); PREP (Preparation); RACT (Reactant or reagent)
(steady state measurements on fructose phosphate fructose bisphosphate
interconversion cycle)
RN 77164-51-3 CAPLUS
CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:424885 CAPLUS
DOCUMENT NUMBER: 125:67300
TITLE: Dentifrices containing fructose diphosphate
dimagnesium salt

INVENTOR(S): Manabe, Mika; Katayama, Tatsuo; Yamamoto, Hideki
 PATENT ASSIGNEE(S): Unitika Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|----------------------------------|--------------------------|
| JP 08081343 | A | 19960326 | JP 1994-217202
JP 1994-217202 | 19940912 <--
19940912 |

PRIORITY APPLN. INFO.:

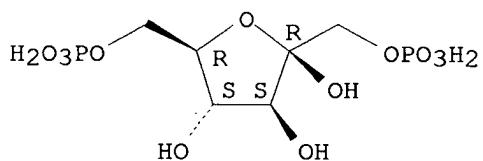
IT **175888-48-9P**

RL: **BPN (Biosynthetic preparation)**; BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (dentifrices containing fructose diphosphate dimagnesium salt for treatment of periodontal disease)

RN 175888-48-9 CAPLUS

CN β-D-Fructofuranose, 1,6-bis(dihydrogen phosphate), magnesium salt (1:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Mg

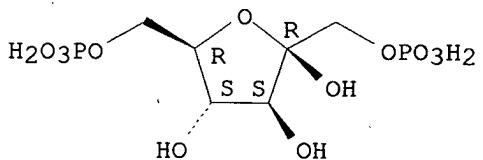
IT **34693-15-7P 94333-58-1P**

RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (microbial manufacture of fructose diphosphate dimagnesium salt from glucose as dentifrice ingredient)

RN 34693-15-7 CAPLUS

CN β-D-Fructofuranose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

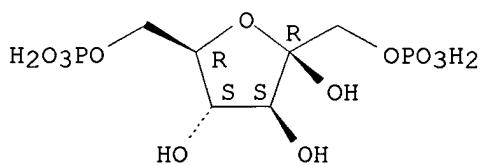
Absolute stereochemistry.



RN 94333-58-1 CAPLUS

CN β-D-Fructofuranose, 1,6-bis(dihydrogen phosphate), trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●3 Na

L6 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:382607 CAPLUS

DOCUMENT NUMBER: 125:41870

TITLE: Ophthalmic solutions containing antiallergic dimagnesium fructose 1,6-diphosphate

INVENTOR(S): Manabe, Mika; Katayama, Tatsuo; Yamamoto, Hideki

PATENT ASSIGNEE(S): Unitika Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|--------------|
| JP 08081377 | A | 19960326 | JP 1994-217204 | 19940912 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1994-217204 | 19940912 |

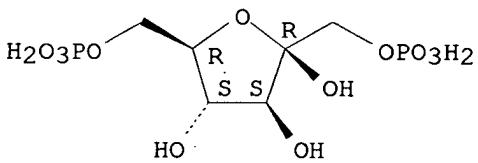
IT **175888-48-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ophthalmic solns. containing antiallergic di-Mg fructose 1,6-diphosphate)

RN 175888-48-9 CAPLUS

CN β-D-Fructofuranose, 1,6-bis(dihydrogen phosphate), magnesium salt
(1:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

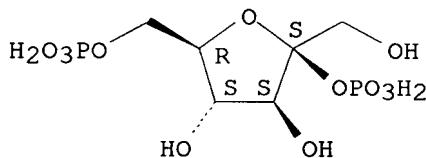


●2 Mg

L6 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

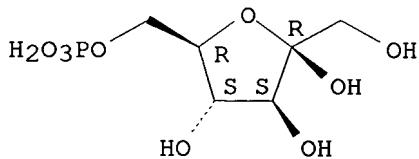
ACCESSION NUMBER: 1995:845285 CAPLUS
 DOCUMENT NUMBER: 123:249927
 TITLE: Anomeric specificity of rat hepatic 6-phosphofructo-2-kinase: an NMR study
 AUTHOR(S): Lee, Yong-Hwan; Picardt, Francis; Pilkis, Simon J.
 CORPORATE SOURCE: Dep. Physiol. Biophys., State Univ. New York Stony Brook, Stony Brook, NY, 11794, USA
 SOURCE: Archives of Biochemistry and Biophysics (1995), 322(2), 357-60
 CODEN: ABBIA4; ISSN: 0003-9861
 PUBLISHER: Academic
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 79082-92-1P, β -D-Fructose-2,6-diphosphate
 RL: BPN (Biosynthetic preparation); BIOL (Biological study);
 PREP (Preparation)
 (anomeric specificity of rat hepatic 6-phosphofructo-2-kinase for
 β -D-fructose-6-phosphate)
 RN 79082-92-1 CAPLUS
 CN β -D-Fructofuranose, 2,6-bis(dihydrogen phosphate). (CA INDEX NAME)

Absolute stereochemistry.



IT 41452-29-3, β -D-Fructose-6-phosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (anomeric specificity of rat hepatic 6-phosphofructo-2-kinase for
 β -D-fructose-6-phosphate)
 RN 41452-29-3 CAPLUS
 CN β -D-Fructofuranose, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

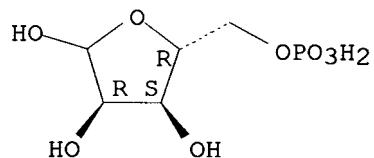


L6 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:261733 CAPLUS
 DOCUMENT NUMBER: 122:29900
 TITLE: Manufacture of 4-hydroxy-2(or 5)ethyl-5(or
 2)-methyl-3(2H)furanone with yeast
 INVENTOR(S): Sasaki, Masaoki
 PATENT ASSIGNEE(S): Kikkoman Corp, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|----------|-----------------|--------------|
| JP 06277083 | A | 19941004 | JP 1993-93848 | 19930330 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1993-93848 | 19930330 |
| IT | <u>24325-23-3</u> , D-Ribose 5-phosphate barium salt | | | |
| RL: | BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent) | | | |
| | (manufacture of flavoring hydroxyethylmethylfuranone from xylulose or ribose phosphate with yeast) | | | |
| RN | 24325-23-3 CAPLUS | | | |
| CN | D-Ribofuranose, 5-(dihydrogen phosphate), barium salt (9CI) (CA INDEX NAME) | | | |

Absolute stereochemistry.



●x Ba

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|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 154.32 | 326.63 |

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L1 STRUCTURE UPLOADED
L2 27 S L1
L3 618 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:12:29 ON 21 NOV 2007

L4 2711 S L3

L5 58 S L4 AND BPN/RL
L6 41 S L5 AND PY<=2003

FILE 'STNGUIDE' ENTERED AT 14:14:38 ON 21 NOV 2007

=> s 16 and phosphatase

COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID

The query entered contains both search terms created by structure-building or screen commands and text search terms. L#s created via the STRUCTURE or SCREEN commands must be searched in the structures files separately from text terms or profiles. The L# answer sets from structure searches can be used in crossover searches and can be combined with text terms.

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Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
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STN INTERNATIONAL LOGOFF AT 14:18:17 ON 21 NOV 2007

d his

(FILE 'HOME' ENTERED AT 10:53:23 ON 21 NOV 2007)

FILE 'CPLUS, MEDLINE, BIOSIS' ENTERED AT 10:54:21 ON 21 NOV 2007

L1 3 "ACID PHOSPHATASE" AND PHOSPHORYLATION AND (?RIBOSE? OR ?ARABIN
L2 190 "ACID PHOSPHATASE" AND (?RIBOSE? OR ?ARABINOSE?)
L3 148 DUP REMOVE L2 (42 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 10:58:26 ON 21 NOV 2007

FILE 'CPLUS' ENTERED AT 11:09:32 ON 21 NOV 2007

E HARTOG A/AU
L4 68 S E3-E9
 E VAN HERK T/AU
L5 8 S E3-E4
 E WEVER RON/AU
L6 108 S E3-E4
L7 168 DUP REMOVE L4-L6 (16 DUPLICATES REMOVED)
L8 68 S L7
L9 1 S L7
L10 99 S L7
L11 16 S L7 AND PHOSPHATASE

FILE 'STNGUIDE' ENTERED AT 11:12:00 ON 21 NOV 2007

FILE 'CPLUS, BIOSIS, MEDLINE' ENTERED AT 11:16:29 ON 21 NOV 2007

L12 11595 "SHIGELLA FLEXNERI"
L13 120 L12 AND PHOSPHATASE
L14 75 DUP REMOVE L13 (45 DUPLICATES REMOVED)

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